PAGAGAS



FEBRUARY 1938

QUALITY GONTAINERS sell more than the product



REFLECTING GOOD TASTE

...both in product and background. The contents are vacuum-packed to stay crisp and fresh indefinitely. And the handsome lithographed container looks the quality that's in it. Would you

like costs on a vacuum container, lithographed, for your product?



They create in the mind of consumers mental pictures of the organization behind the product. Canco containers sell product, producer and retailer. They reflect a background of quality that is essential for the complete success of the product.



THREE FACTORS THAT SELL:

- PROTECTION
- CONVENIENCE
- BUY APPEAL

This metal and fibre container keeps the contents fresh. The top is large enough for the insertion of a large measuring spoon. It opens easily, seals tightly. Tell us what your product is and we'll be glad to suggest economical, sales-winning packaging ideas.



HITTING A NEW SALES HIGH

Sales of this product have increased phenomenally in this new, lithographed container, despite the fact that the product is selling at a premium above other tomato juices. Why not let a Canco lithographed container help boost the sales of your product? Write today for moderate cost information.



AMERICAN CAN COMPANY

230 PARK AVENUE, NEW YORK, N. Y.

104 SOUTH MICHIGAN AVENUE, CHICAGO 111 SUTTER STREET, SAN FRANCISCO WORLD'S LARGEST MANUFACTURER OF METAL AND FIBRE CONTAINERS

TOPS

THE HIGHEST POINT on earth is Mount Everest in the remote kingdom of Nepal in the Himalayan range. An awesome, mysterious, inaccessible peak towering over twenty-nine thousand feet into thin air, perpetually capped with ice and snow, invariably wearing a sweeping plume of wind-driven sleet and mist. Known to the superstitious natives of ancient Tibet as Chomo-lungma, "goddess mother of the mountains," and believed by them to be guarded at the summit by a horde of jealous and ever-vigilant demons. The English changed the name to Mount Everest after Sir George Everest, famous British geographer, made a trigonometrical survey of the Himalayas in 1841. Since 1921 five expeditions have sought to scale its inaccesible heights. They have toiled up its jagged slopes, clung desperately to its perpendicular walls, crept slowly over its treacherous glaciers until within a few hundred feet of their goal. But all have failed. The pinnacle of Mount Everest is still inviolate. At least fourteen men have lost their slender hold upon its precipitous sides and plunged to their death in abysses yawning below. Yet more expeditions shall come! To do battle with the rarified atmosphere, terrific gales, sub-zero temperatures and the constant threat of sudden death in a misstep. When conquered by man, if it ever is, Mount Everest will lose none of its majestic grandeur. It will still be the "top of the world" . . . dramatic, compelling, triumphant even in defeat. No fitting comparison can be made between it and anything else on earth. It would be folly to attempt it. But in its own humble sphere, the Phoenix Compo (Band) Cap occupies a somewhat similar position. During its long years of service to the packing industry (for it was the first true commercial closure to be manufactured in the United States) it has never been excelled as a seal for the packaging of foods in glass. It is literally "tops in the packaging world." Dependable, attractive and convenient . . . but above everything, convenient!

PHOENIX METAL CAP CO.

2444 W. 16th St., Chicago

3720 14th Ave., Brooklyn

Branch Offices: Philadelphia, Baltimore, Boston, Cleveland, Cincinnati, St. Louis, San Francisco, Los Angeles



RECORD ... of Redington's 40th and <u>Greatest</u> Year!



More Redington Packaging
Machines Were Bought in 1937
Than in Any Previous Year in
Our History

Bres

Teles

Chic

Exhib

Two, three, four and even more Redingtons were bought by a number of nationally known manufacturers in 1937. They bought wrapping and Cellophane wrapping machines, special packaging equipment, too.

We mention this remarkable business record because we sincerely believe it is worth keeping in mind when you are considering new automatic equipment. Such a record is added proof of the superiority of Redington machines. Good machines—the Redington kind—cost from \$4,000 to \$18,000 a unit. You must be sure you are getting machinery with a record of proved performance . . . and that you are working with engineers familiar with the problems in your field.

The products shown here are just a portion of those packaged on the new, 1937 model Redingtons. In many instances, these machines are helping production keep pace with increased sales . . . or making practical and economical the handling of a new product. In still other cases, Redingtons have replaced old, obsolete, profit-reducing machinery that had become a burden instead of a help.

We'll gladly furnish more details about these installations or suggest solutions for your own problems. Write—without obligation.

F. B. REDINGTON CO. (Est. 1897) 110-112 So. Sangamon St. CHICAGO, ILL.

REDINGTON Fackaging Machines

for CARTONING • CELLOPHANE WRAPPING • CARTON SEALING

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MODERN PACKAGING

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NEXT MONTH



Prepare a special place on your book shelves for the next issue of Modern Packaging. It's the All-America issue—the largest of the year—but more than that, the issue that will set a whole series of new precedents in packaging. You will find every All-America prize winner in full and detailed photographs in a special 64-page section—special paper, special engravings, special printing—plus an analysis of every winning package and the planning that went into it. Dozens of pages are being prepared on other aspects of the Competition—to make the March issue a review of past and future trends in every field of packaging. Full details, of course, on the forthcoming Packaging Show and, of special interest to Canadian readers, a review of packaging progress in the Dominion.



By-products of Papermaking

These youngsters are sons and daughters of Parchment papermakers. Many of them will some day make paper for KVP....even better paper than their fathers are now making. Right now, they are enjoying the fruits of part-time work last summer. They mowed lawns, washed cars, made furniture, baked cookies....made themselves useful in a thousand

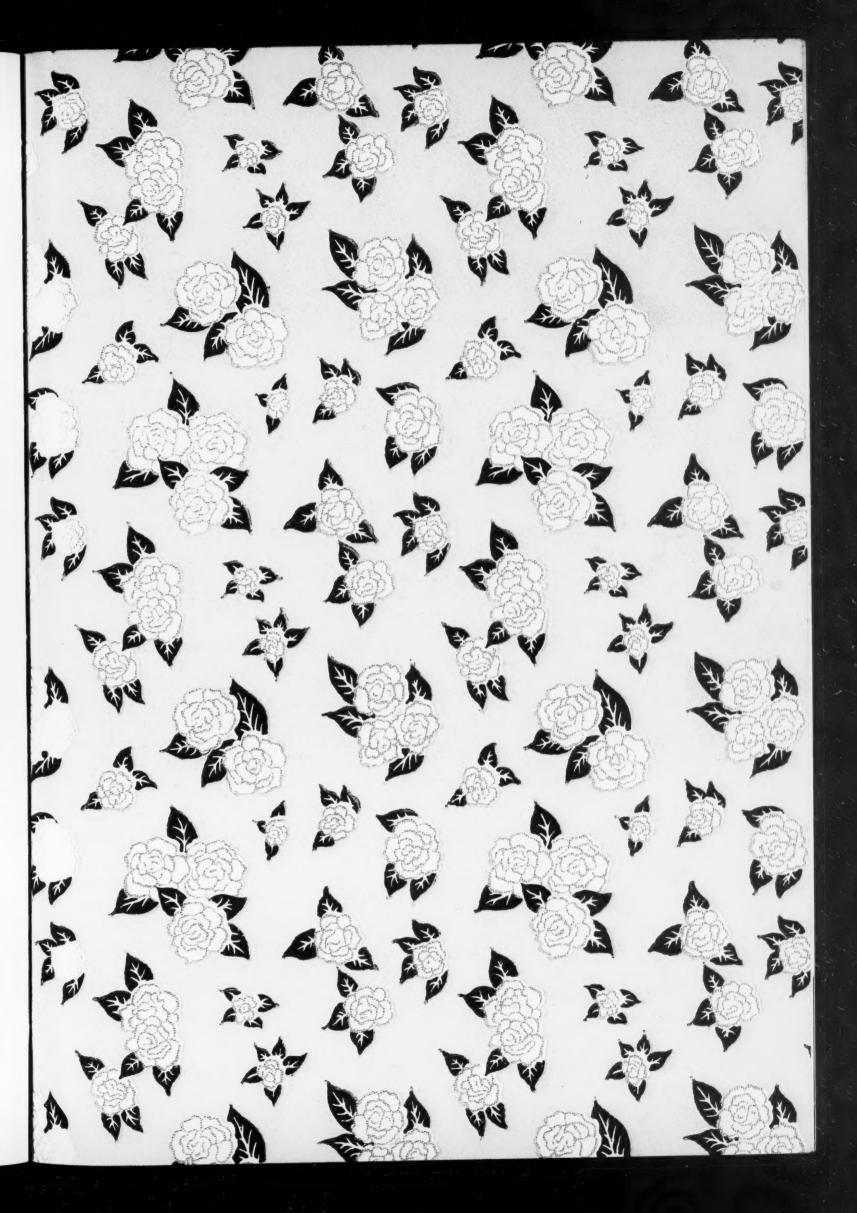
ways. Most important, they learned to work; they learned the value of a dollar.

Last summer was the third season for our Home Works Plan for Community Youth. It continues to be the best investment we have ever made! We are not going to blame our Youth if it goes astray. We are going to blame ourselves.



FOOD PROTECTION PAPERS

KALAMAZOO VEGETABLE PARCHMENT COMPANY PARCHMENT KALAMAZOO MICHIGAN



GARDENIA PRINT

This is only one of several new printed patterns in Hampden's new 1938 line of printed box papers. Shown in many new attractive color combinations, Gardenia Print is offered for your consideration. Why not ask to see the assortment of sample sheets and select the color best adapted for your box.

Send your request direct to

HAMPDEN GLAZED PAPER AND CARD COMPANY Holyoke, Massachusetts

SALES REPRESENTATIVES

New York, N. Y. 60 East 42nd St.

Philadelphia, Pa. 412 Bourse B'ld'g. Chicago, III. 500 So. Peoria St.

Fred'k. Johnson & Co., Limited 234, Upper Thames Street London E. C. 4 England San Francisco, Calif. 420 Market St.

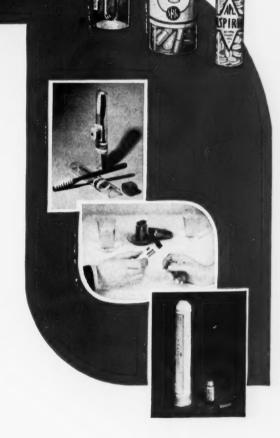
Toronto, Canada 137 Wellington St. West



AVA in 1690! A Dutch ship anchored off the coast. Memorable date! — for the pioneering voyagers brought sample coffee seeds. The seeds were planted and bore fruit. Later, the English repeated the experiment in Jamaica, the French in Martinique, the Portuguese in Brazil in 1774. From these beginnings, coffee acquired world-wide acceptance so that in the United States alone consumption today passes the amazing annual total of 1,750,000,000 pounds.

From insignificant samples, hundreds of modern sales successes have been achieved. Cloaked in lustrous Kimble Glass Vials, products without end are carried into millions of hands —for makers of drugs, perfumes, proprietaries, chemicals, foods, candies, cosmetics — to dealers and markets looking for new packages for edibles or extracts, pills or powders, sauces or serums, laxatives or liniments.

Kimble Glass Vials—thoroughly annealed and strain-free—never fail to catch the eye and fancy of particular buyers. Their pocket-convenience, perfect transparency, and appealing "personality" make them the ideal sampling and packaging container. Their availability for all types of standard and special closures makes them America's No. 1 package choice!





The Visible Guarantee of Invisible Quality

KIMBLE GLASS COMPANY . . . VINELAND, N. J. NEW YORK . . CHICAGO . . PHILADELPHIA . . DETROIT . . BOSTON





CROWN CLOSURES

"BETTER SEALING FOR BETTER BUSINESS"

SCREW CAPS VACUUM CAPS CROWNS
MASON CAPS V.P.O. CAPS LUG CAPS
DOUBLE SHELL CAPS CAPPING MACHINERY

A RAILROAD'S responsibility is to deliver its passengers and freight safely and on time. That's why a run is never started without making absolutely sure of each and every detail.

There's a kindred responsibility in the making of Crown Closures. Users are entitled to uniform quality, unvarying accuracy, and maximum sealing efficiency. And that's why Crown takes no chances. Raw materials are checked and rechecked. Closures are rigidly inspected at every step of the manufacturing process. Nothing is left undone to give you the finest closures money can buy.

There's a Crown Closure to meet your needs. Get samples and compare them. They are yours for the asking.

CROWN CORK AND SEAL COMPANY . BALTIMORE, MD.

World's Largest Makers of Closures for Glass Containers



Display value in playing card packages? Here are two of Ritchie's answers. Different without being freakish - handsome without being expensive. And if you haven't noticed this cosmetic box prominently displayed in the stores, we'll bet your wife has!

Set-up Paper Boxes - Fibre Cans

NEW YORK

Serving a country-wide clientele in almost every field, W. C. Ritchie and Company offers its customers the manufacturing advantages of one of the largest and oldest box makers in America, and a free design service based upon full recognition of the merchandising importance of a properly designed package.

W. C. RITCHIE AND COMPANY

LOS ANGELES

 8849 BALTIMORE AVENUE - CHICAGO ST. LOUIS

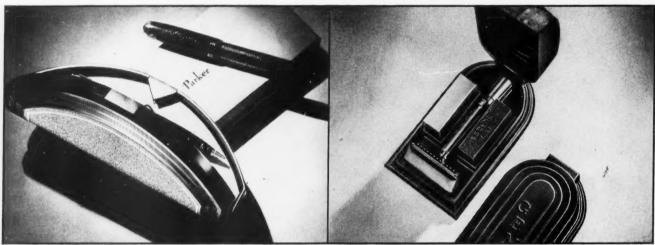
ST. PAUL

QUALITY PACKAGES MAKE QUANTITY SALES

The big test of a package's value is what it can do in adding impulse appeal to the product, helping the sale at the point of sale. And that's the place Durez packages time and again have proved their value. Buyers like their eye-catching color, sleek surface finish, sculptured beauty. They like the packages' convenience, their more-for-the-money look. And best of all, Durez packages can't dogear, lose their sales appeal, no matter how much they're handled while on display. Considering the merchandising punch they add to the product, in many cases they've proved more economical in the long run than conventional types of quality packages.

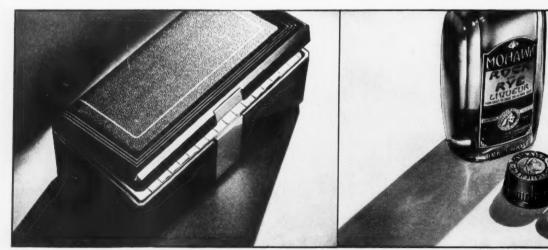
In Durez packaging you have unlimited design possibilities, a wide range of color. You get a package that's light in weight, but strong enough to take a battering. You can mold in your name and trade-mark... make the package a permanent advertisement of yours in the home. Why not learn more about the advantages of Durez, the phenolic plastic, for packaging and display purposes. Write General Plastics Inc., 82 Walck Road, North Tonawanda, New York.

The Modern Parkaging Material



People are prone to judge a product by its appearance—fundamental reason why Parker created a sleek black Durez container with applied leatherette, gold trim and acetate satin lining for their deluxe pens.

One of today's toughest selling problems is to move razors. Gem designed this washable, stainproof Durez box in several different colors, used it as a featured part of their merchandising plan... with very satisfying success.



This smart new Durez package for Benson & Hedges cigarettes not only sells the idea that here are better cigarettes... but used as a cigarette box in the home it reminds the buyer of Benson & Hedges, helps to get him to reorder that particular brand.

Most unusual closure to appear in a long time is the Armstrong Mohawk liqueur bottle cap shown. Molded of scarlet Durez, the caps are light in weight, shatter-proof. The basrelief indian head and name molded in as a finger-grip both help to gain brand identification.

CONSUMER APPEAL CARTONS







Modern packaging must have consumer-appeal. Whatever channels or methods of distribution you use, your product has for its goal the hands of the consumer.

The consumer is the Court of Last Resort, from whose final decision there is no appeal.

But before that decision is made, you can influence it in your favor, and your package is your Ambassador of Good Will. The package is what the consumer carries home; the package has the last word.

Illustrated at the right: The nationally-known BAYUK PHILLIES Carton, and the beautiful new FOUR ROSES Carton. At the left: Counter dispensers which are helping to sell JERGENS LOTION and LIBBY BOUILLON CUBES—both in the new "S-U-S" (Stand-Up-and-Sell) style of construction.

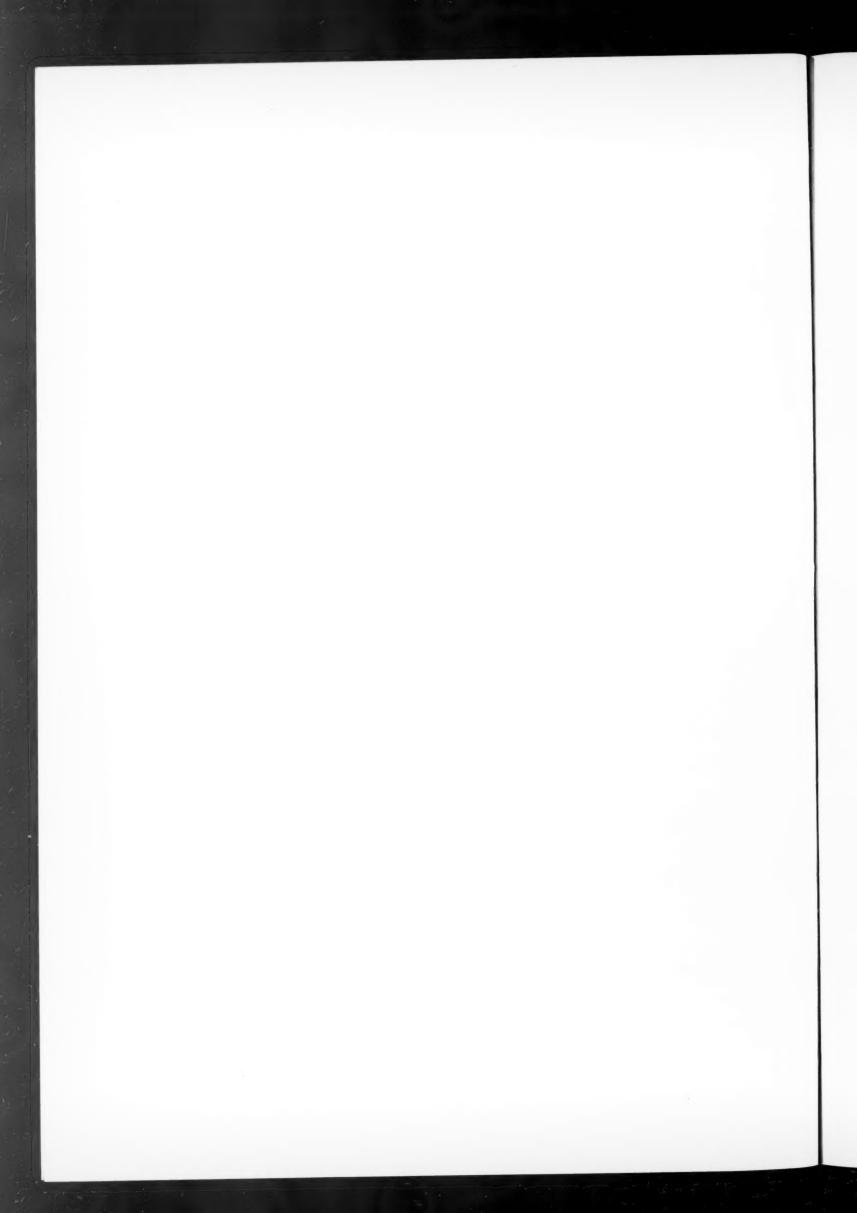
For packages that help consumers to favorable decisions, call a representative from any "U-S" Division.

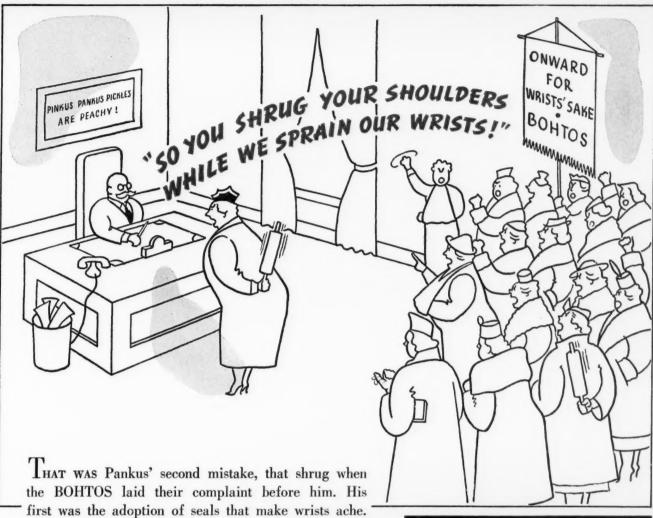






- * AMERICAN LITHOGRAPHIC DIVISION
- * ATLANTIC LITHOGRAPHIC & PRINTING DIVISION
- * DONALDSON LITHOGRAPHING DIVISION
- * ERIE LITHOGRAPHING & PRINTING DIVISION
- PALMER ADVERTISING SERVICE DIVISION
- * W. F. POWERS DIVISION
- * THEO. A. SCHMIDT LITHOGRAPHING DIVISION

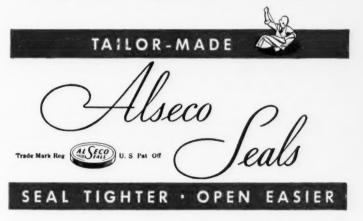




True, women get them off by hook or crook and some women are long suffering. Others aren't. They're BOHTOS, Boycotters Of Hard To Open Seals. And Mrs. Burleigh Biceps, their leader, says "Though we're weak in the wrist, we're strong in number."

Pankus can get out of his pickle and sell more pickles if he will do as many another has done. Use Alseco Seals (No tools, no brawn, no cussin'). And he will find that his pickles stay even more "peachy" because these tailormade seals seal so securely.

If you'd like to set him straight, tell him to write the Aluminum Seal Co., 1345 3rd Ave., New Kensington, Pa.





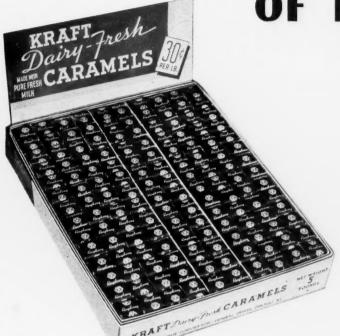




Minimum minimum market and a second Has been the standard for 40 years Every piece guaranteed Long runs are assured More plants use it Orders shipped promptly Less makeready trouble Durability Steel cutting, creasing, perforating and wave rule J. F. Helmold & Bro., Inc. 1462 Custer St. CHICAGO Established

Everybody's Happy

WITH A CARAMEL WRAP OF DIAFANE



Saves over 35% of Wrapping Cost
Diafane will save over 35% of the price of
transparent cellulose wraps, whether you use
printed or plain.

Absolutely Does Not Stick

Regardless of weather conditions, your caramels will not stick to Diafane—nor will pieces of Diafane remain on the caramel.

Bigging appearance of your caramels.

Works on Any Machine

Diafane gives you maximum production efficiency. It folds well — and it stays folded.

THE CONSUMER prefers a Diafane caramel wrap. Small pieces of wrap are not left on the caramel, nor will part of the caramel remain on the wrap, regardless of weather conditions. This is particularly important when caramels are as rich in butter fat as Kraft's toothsome and delicious Dairy-Fresh brand.

THE PURCHASING AGENT likes Diafane, for it saves over 35% of the cost of unprinted transparent cellulose, with an equal saving if printed wraps are used. Think what this means in the face of generally increased costs.

THE SALES MANAGER favors Diafane. He not only realizes the importance of lower costs, and knows that pleased consumers increase sales—but he's sure to like the good gloss and high transparency that displays the caramel so temptingly.

THE FACTORY SUPERINTENDENT will also be a Diafane booster, for here is a wrap that gives him maximum production efficiency — a wrap that folds well and stays folded.

Whether you're the Purchasing Agent, the Sales Manager, the Superintendent, or the "Big Boss" — you'll realize that if Diafane does what we say—you have found a perfect caramel wrap. Write for prices and for sample rolls — and make your own convincing tests.

In addition to Chocolate,
Vanilla and Licorice, the
following New Flavors of
Kraft Dairy Fresh Caramels
are individually wrapped
in DIAFANE.

Run

Coconut

Raspberry

Coffee

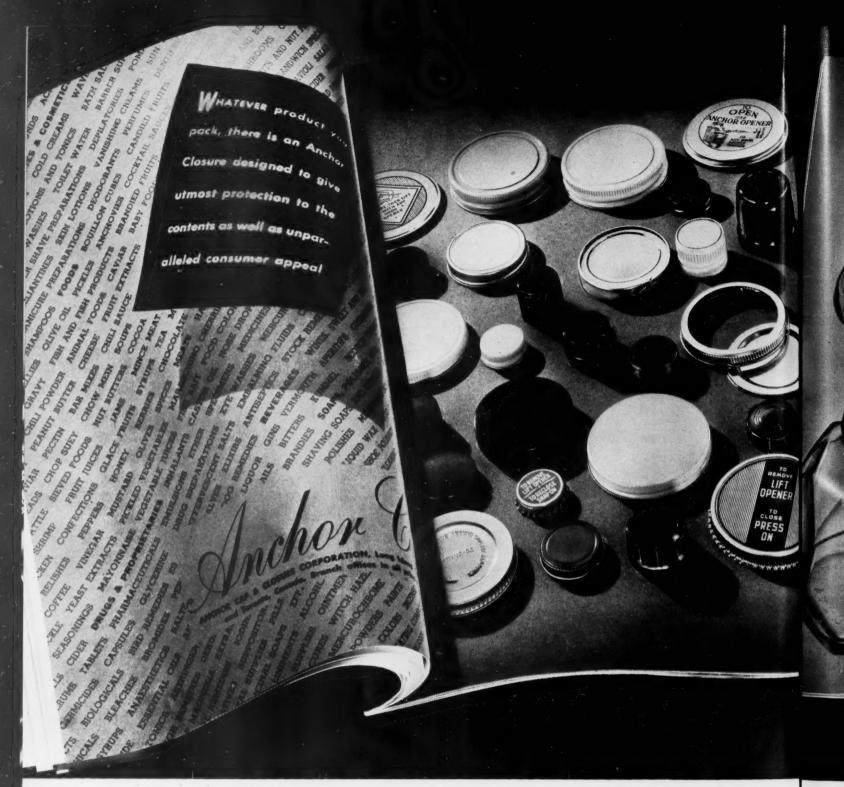
Molasses

Cocoanut

RIEGEL PAPER CORP.

342 MADISON AVENUE, NEW YORK, N.Y.

The opposite insert is a sample of Riegel's Diafane available in a wide variety of weights and grades.



ANCHOR seals them all ... an almost limitless variety of products ... safely, efficiently, attractively. The secret lies in the painstaking development, over almost a third of a century, of the most complete line of closures in the world. Why not give your products and your packages the sales and production advantages of these better caps ... utilizing the accumulated experience and unrivaled facilities of the Anchor organization! ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York, and Toronto, Canada. Branch offices in all principal cities.

Anchor Caps



WHETHER you package one product or many, there is a style and shape of Capstan container "built to order" for each. Moreover, by using Capstan as your source of glass supply you assure yourself of clear, sparkling, sturdy containers . . . glassware of unquestioned quality . . . supplied by an organization alert to the meaning of service. CAPSTAN GLASS COMPANY, Connellsville, Pa. Associate Company: SALEM GLASS WORKS. Branch offices in all principal cities.

Cahstan Glass



SIMPLEX boxes bring you every advantage of the finest set-up boxes . . . in attractiveness, strength, sales-appeal, quality, and are available in one and two piece construction.

If your plant is crowded for room, if you'd like to save on production costs, if you have any sort of box problem --- then the Simplex boxes offer the solution. Write immediately for information.

SIMPLEX PAPER BOX CORPORATION
LANCASTER PENNSYLVANIA



Trade Mark Made Under License In All Parts Of The U. S. A. And Canada



AMERICAN MANAGEMENT ASSOCIATION



PALMER HOUSE, CHICAGO MARCH 22-25, 1938

Fresh Frosted Fish Fillets Kept Ocean-Fresh in SYLPHRAP-Sylvania cellophane



ROBABLY no food needs the attribute of freshness more than fish—that right-out-ofthe-ocean flavor—for preparing deep sea dishes.

This nationally known brand of fish fillets could not be otherwise than delicious. Every step in the preparation of these fillets is vigilantly and scientifically performed, the fillets are then wrapped in a clear sparkling sheet of Moistureproof SYLPHRAP and quick frozen. All of the original richness of flavor and values of nutrition are brought to the consumer's table—ocean-fresh, fully protected and sanitary.

And thus SYLPHRAP—Sylvania cellophane performs another important service in the packaging and protection of another of today's most important food products—Fresh Frozen Fish Fillets.

SYLPHRAP is "Quality's Best Attire"

BRANCH OFFICES

ATLANTA, GA., 120 Marietta St. Boston, Mass., 201 Devonshire St. CHICAGO, ILL. 427 W. Randolph St. Dallas, Tex., 809 Santa Fe Bldg. PHILA., PA., 260 So. Broad St. MANUFACTURED BY

SYLVANIA INDUSTRIAL CORPORATION

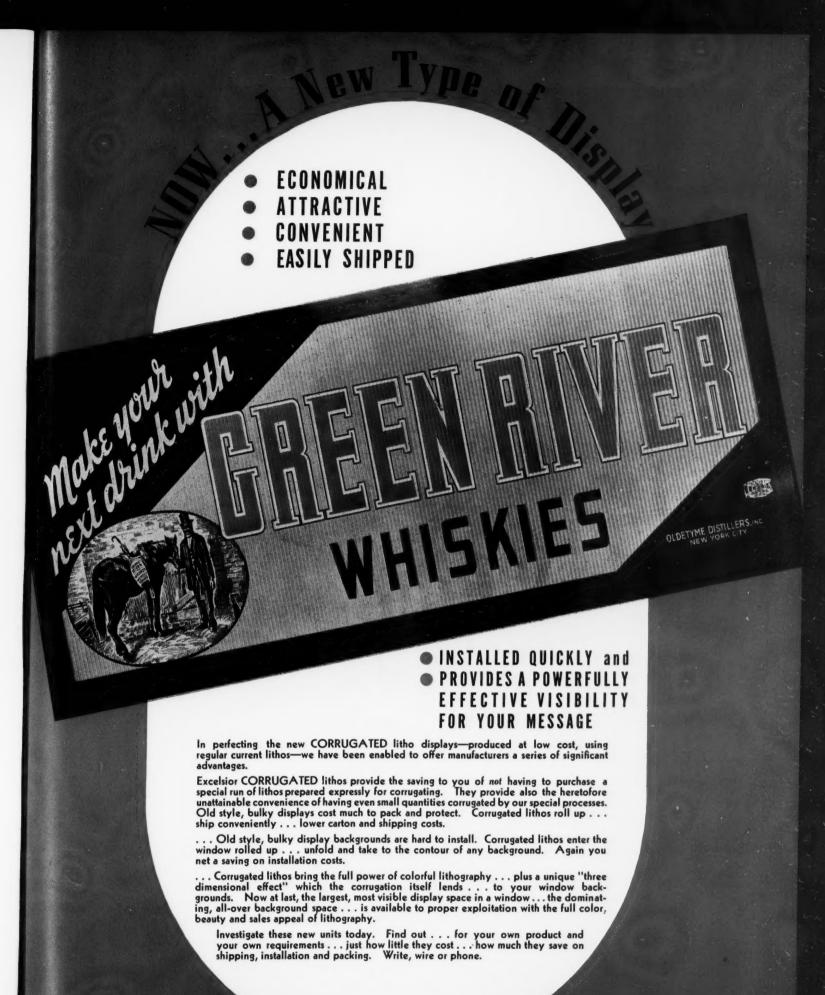
at Fredericksburg, Va.

Executive and Sales Offices: 122 E. 42nd Street, New York

PACIFIC COAST Blake, Mollitt & Towne Offices and Warehouses in Principal Cities

CANADA Victoria Paper and Twine Co., Ltd. Toronto and Montreal

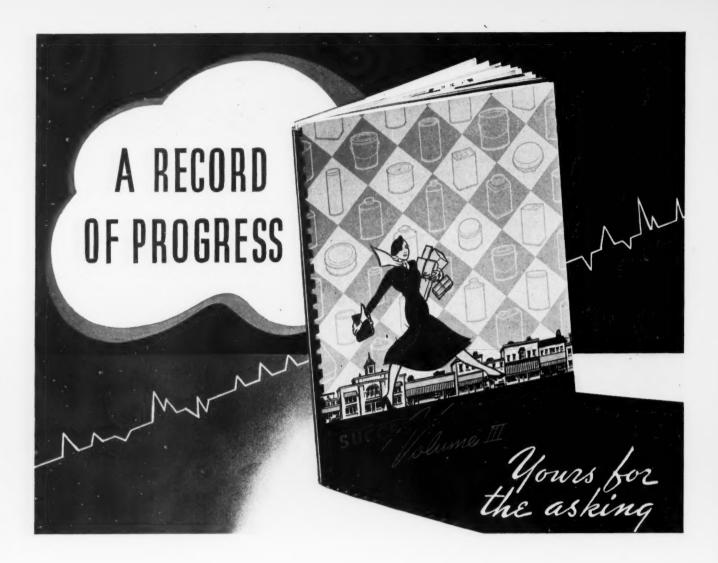




EXCELSIOR PAPER SPECIALTIES CO. Inc.

622 West 57th Street

New York City



Each year the task of selecting the few of the many outstanding containers by Continental which can be featured in "Successful Packages" grows increasingly difficult. For, more and more, the manufacturer of packaged goods is learning that the container which is easy to fill, handle and ship, which makes his product easy to use and which, above all, has the eye-appeal that sparks point-of-sale contact into buying, is not a miracle, but merely the result of finding the right container-maker and enlisting his help.

So, with regrets that all the outstanding Continental packages of 1937 could not be shown, those which have been illustrated in full color are commended to your attention. Some demonstrate Continental's ability to follow customers' orders; others represent co-operation between the customer and Continental's research, development and designing services.

A limited edition of "Successful Packages" is available to any manufacturer of packaged goods. Write for your copy today.

Continental Can Company

CHICAGO

100 EAST 42ND STREET NEW YORK CITY

SAN FRANCISCO

AN IMPORTANT ANNOUNCEMENT

TO THE MANUFACTURERS OF CORRUGATED BOARD

• Two short years ago The Stein-Hall Process was comparatively unknown.
A year ago eighteen plants were using it. Today over fifty of the largest and most progressive makers of corrugated board are manufacturing by The Stein-Hall Process.

In response to the steadily increasing demand for this improved method of board making, we are happy to announce that The Stein-Hall Process is now available through several of the leading companies in the corn refining industry who have been licensed under our patents. This arrangement applies to the proper installation and servicing of the necessary equipment, and to the supplying of all materials required.

Address your inquiry to any of the following companies:

THE STEIN-HALL PROCESS

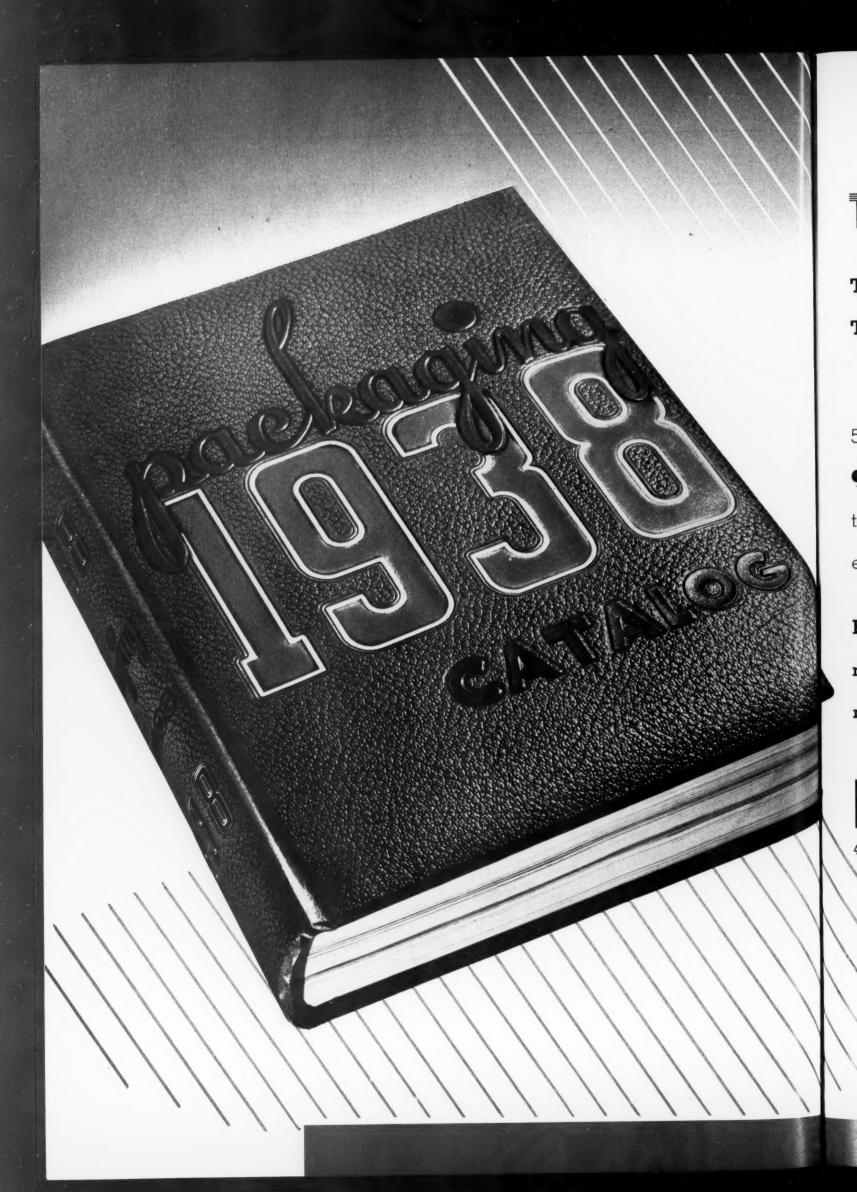
A. E. STALEY MFG. CO.
Decatur, Ill.

CLINTON COMPANY
Clinton, Iowa

PENICK & FORD LTD., Inc. New York, N. Y. Cedar Rapids, Ia.

CORN PRODUCTS REFINING CO.
New York, N. Y. Chicago, Ill.

STEIN, HALL MFG. CO. Chicago, Ill. STEIN, HALL & CO., Inc. New York, N. Y.



THIS IS NO "BLOW=UP"!

The 1938 Packaging Catalog weighs approximately 9 lbs.

The most complete, most informative, most useful Guide to Packaging ever published!!

544 pages . . . Hundreds of pages of tip-ons, samples, inserts, etc.

¶ Hundreds of pages of text written by experts in every field relative to packaging ¶ Largest and most complete directory section lists everything package users might need

Hot off the press, this edition of the Packaging Catalog is now ready for mailing . . . last year's edition ran out in a month!! Get your order in now, as supply is limited!!!

PACKAGING CATALOG

425 FOURTH AVENUE, NEW YORK N Y

SOME TYPICAL SECTIONS

Design principles	23 pages
Paper boxes	71 pages
Bags	23 pages
Wrapping and ties	47 pages
Metal containers	29 pages
Glass containers and closures	43 pages
Labels and seals	17 pages
Plastics	25 pages
Displays	33 pages
Machinery and supplies	103 pages
Printing	27 pages
Shipping	35 pages
Cellulose containers	17 pages

WARNERCRAFT THE FINEST WORD IN PACKAGING

If Packaging were merely wrapping

Then color harmony,

Practical design, and

Precise workmanship (WARNER-CRAFT)

Would be unnecessary.

But

The merchandising appeal of

Fine (WARNER-CRAFT) packaging

-Folding and Set-Up Boxes-

Justifies your utmost consideration.

THE WARNER BROTHERS COMPANY, BRIDGEPORT, CONN.

200 Madison Avenue, New York-Ashland 4-1195

DESIGN

We maintain full time designers skilled in the art of creating and developing modern packages and displays.

Also available in Maryland Flint (Design Patent No. 105,265)

ANNOUNCING

THE

w

CHESAPEAKE OVA

Pack to attract in this modern stock design. Available in 4, 6, 8, 12, 16 and 32 ounce sizes, with standard Continuous Thread finish, G. C. A. 400. Black double shell caps can be shipped from stock if desired. Write for samples and prices of the Chesapeake Oval. Maryland Glass Corporation, Baltimore, Md. New York Representative: 270 Broadway. Pacific Coast Representative: Owens-Illinois Pacific Coast Co., San Francisco.

Maryland Bluz

BOTTLES AND JARS





In the world of silver, "Sterling" denotes a quality unequalled in ageless service. By dint of actual performance, Gaylord Boxes, with their "Extra Margin of Safety," have earned the same high regard in the shipping container world.

Check with Gaylord...there's a plant or sales office in your territory.

GAYLORD CONTAINER CORPORATION

General Offices: SAINT LOUIS



Libby, McNeill & Libby bouillon cubes take on new size—new importance—in the eyes of the consumer when packed in these attractive BARWOOD, molded wood, ash trays. And repurchases are assured when housewives begin collecting these beautiful trays for bridge sets, etc.

BARWOOD is new. A distinctive molded wood that lends itself to innumerable merchandising uses; as re-use containers, premiums, advertising specialties and applied decoration for packages of all kinds. It's surprisingly low in cost, too, and offers a practically unlimited selection of designs and finishes.

The possibilities of BARWOOD have only begun to be discovered. Boynton designers are every day developing for manufacturers new products and new applications of BARWOOD. Let them work upon your problems.

Send for folder illustrating BARWOOD products

BOYNTON AND COMPANY

BARWOOD DIVISION

1725 NORTH BOSWORTH AVENUE

CHICAGO

A Powerful SELLING FORCE



A.C.M JUMBO DISPLAY CARTONS

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packaging problems of the FROZEN FOODS INDUSTRIES



by DONALD K. TRESSLER NEW YORK STATE AGRICULTURAL EXPERIMENT STATION.



1. Cylindrical type of container if constructed of heavily paraffined cardboard is satisfactory for peas and other frozen vegetables. Photo courtesy Olney and Carpenter.

The freezing preservation of foods in bulk is an old industry, having been employed even before Civil War times. Although bulk freezing methods, socalled slow freezing, aided the food industries by carrying perishable products over from periods of scarcity, yet frozen foods of high quality were not and could not be produced because of the changes occurring during bulk freezing and subsequent storage. It was not until the advantages of quick freezing foods in small containers or rapidly freezing small individual portions and then carefully packaging for storage, were discovered that frozen products of a quality comparable to fresh foods were made possible. Nearly everyone assumed that the great improvement in the quality of frozen products offered was due to the quick freezing processes employed. Actually three, and in many instances four, other factors are of very great importance in obtaining improved quality in frozen products: (1) Improved packaging in small containers. (2) More careful selection of raw material. (3) The use of lower storage temperatures. In the case of fruits and vegetables there is still another very important factor: (4) Proper processing or preparation for freezing. Factors two, three and four have been considered in great detail in reference to their effects on quality in the book by Mr. Clifford Evers and the writer, "The Freezing Preservation of Fruits, Fruit Juices and Vegetables."*

The present article will be devoted to a consideration of the problem of selecting the proper packages for the numerous kinds of frozen foods. Because of the great variety of frozen foods offered, it is obvious that no one or two types of packages will be generally suitable. The products offered include whole fish, fish fillets, fish steaks, fish roe, shrimp, lobster meat, crab meat, oysters, clams, scallops, a large number of cuts of meat, such as steaks, chops, roasts, hamburger, liver, etc., many kinds of poultry, e. g., ducks, turkeys and chickens, more than a dozen vegetables and about twenty different fruits. The problem is complicated by the fact that a number of different systems of freezing are employed. For example, according to the Birdseye system all of the products are packaged first and then frozen between movable metal plates or belts. On the other hand, in many other systems the foods are frozen before packaging.

Qualities Frozen Food Containers Should Possess

Some of the moisture of the atmosphere of freezing rooms and cold storages condenses on the very cold refrigeration coils thus drying the air. Because of the rather low humidity of the air, products placed in cold storage rapidly desiccate unless protected by a moisture-vapor-proof wrapping or package. Desiccated frozen foods are usually lacking in appearance, flavor and texture, usually being tougher than foods which have been properly protected. For this reason packaging materials should be substantially moisture-vapor-proof even at cold storage temperatures.

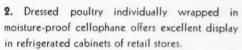
Most foods are wet at the time of packaging for freezing. Packaged frozen products allowed to come into contact with warmer air are immediately wet by the condensation of moisture on the exterior of the package. Furthermore, nearly all frozen foods "leak" more or less when permitted to thaw preparatory to cooking thus wetting the interior of the container. It is evident, therefore, that since the package may be wet both on the inside and outside, it should not only be water-proof but water-tight as well.

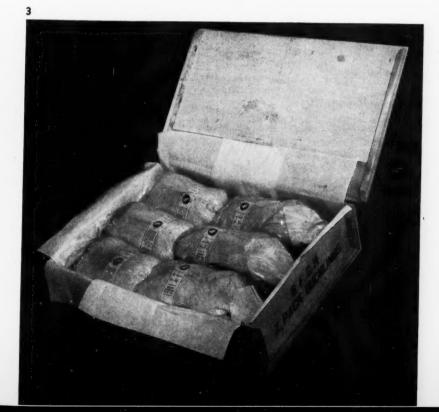
If the product is to be packaged before freezing, it is important that the packaging materials be fairly good conductors of heat as otherwise freezing would be unduly retarded.

Another consideration even more important than any other is freedom from odor or taste that may be imparted to the packaged food product. In some cases materials, which would otherwise be entirely satisfactory, are worthless for frozen foods because of peculiar odors which they impart during cold storage for long periods. A good way to test a container for undesirable odors is to fill it with a substance which readily absorbs odors, e. g., freshly made butter, and store it in a refrigerator maintained a little above freezing for a few days.

^{*} Published by the Avi Publishing., Co. New York.







3. Ducks frozen by the "Z" Process are individually wrapped in non-moisture-proof cellophane or in vegetable parchment. Vegetable parchment is here used in lining the wooden crate. Triple-wall corrugated board boxes are frequently used. Photo courtesy Charles H. Welling & Co., Inc.



If the butter remains free from objectionable flavors and odors, the package is usually satisfactory in this respect.

The interior of the container should not be damaged or discolored by contact with the product either before or after freezing. Thus packages used for fatty products should not only be water-proof but grease-proof as well. Packages used for strawberries and other highly colored fruits should not be stained by them.

It should not be necessary to indicate that the package should be attractive. If tin cans are used, they should be lithographed and not labeled as the labels lose their attractiveness once they become damp. Paperboard containers should be printed in attractive colors. From the standpoint of sales appeal transparent liners and wrappers possess considerable advantage as they dress up the package and product and permit display in a refrigerated case.

Other self-evident points, too often overlooked, are the importance of proper size and shape. Both of these points must be very carefully considered before the package is selected for a given product. If one is freezing in a Birdseye Multiplate Froster in which good contact with metal plates is needed, it is obvious that a thin rectangular package is the only one that is practical for most products. A thick package defeats the purpose of the process, as it greatly increases the length of time required for the treezing operation. On the other hand, either cylindrical or rectangular packages may be employed in freezing on racks in a sharp freezer, although it is important to choose a shape and size that will freeze quickly. In general the greater the smallest dimension of a package, the longer the time it takes to freeze the entire contents of the package, provided, of course, other conditions are the same.

Some products must be rapidly frozen, e. g., meats, fish and poultry, if a first-class product is to be obtained. For these foods a thin package must be used or else they must be frozen before packaging. Other products, such as fruits and vegetables, may be satisfactorily preserved by slower freezing such as may be obtained in a sharp freezer provided with a good circulation of air. These products may be frozen in thick cartons or cans if they are not too large.

Some quick freezing processes have been devised primarily for freezing products prior to packaging. Examples of these processes are the "Z" and the Ottesen procedures, and the moving belt method, such as is used tor freezing peas and some other vegetables individually, so as to get a free running product. If, as in the case of these processes, the product is to be packaged after freezing, the size and shape of the package employed is dictated solely by the preference of the trade to which the product is to be sold.

Some fruit juice freezing processes, as for example the Finnegan and the Hale, have been designed for freezing products packed in tin cans.

Limitations of Some of the Types of Packages Now in Use

Certain products place definite restrictions on the shape and size of the packages employed. Examples of such products are sirloin steak and many other cuts of meat, poultry, corn-on-the-cob, whole fish and many others. In other words it is often necessary to fit the package to the product.

Some products, such as peaches, mushrooms and snap beans, do not keep well in cold storage because of slow oxidation and other deleterious changes. Evacuated containers are usually advantageous for such products.

Finally, frozen food containers must not be costly, for these products must be sold at a moderate price if a sufficient volume of business is to be obtained. It must be understood, however, that the packaging of frozen foods presents new problems which tend toward the use of relatively expensive materials in order to satisfactorily meet the rigid requirements of frozen food packing.

7. One of the most widely used of all frozen food packs is the Peters type carton of paraffined board. This requires an inner lining—in this instance, cellophane.



Glass containers are little used for frozen foods because they are difficult to make in the shapes required for some products. Then, too, they cannot be filled completely because of the possibility of bursting during freezing. On the other hand, they are air- and water-tight and of course also moisture-vapor-proof. Being transparent, glass containers may be used advantageously for displaying frozen foods.

Tin containers also possess the advantage of being air- and water-tight. They may easily be evacuated and so may be used advantageously for the storage of foods that oxidize during cold storage, e. g., peaches, mushrooms, oysters and apples. Since they are not transparent they are not suitable for the display of frosted foods. Perhaps the greatest objection to their use is that some persons assume that tinned products will not spoil when stored at ordinary temperature. In fact housewives have been known to put frozen foods packed in tin containers on the shelves of their cupboards and had the cans burst because of gas formed during spoilage of the food. One additional reason why some packers do not use them is because they are commonly used for processed foods, and the manufacturers of frosted foods are anxious to avoid imitations of canned foods.

Lacquered tin cans, with slip cover tops, ranging in size from number 10s to those holding 50 pounds are used for a considerable portion of the frozen fruit pack sold to bakers, ice cream manufacturers and jelly and jam makers. Many freezers of vegetables to be sold to hotels, restaurants and steamship lines use friction top tins.

Paperboard cups, tubs and cylinders: Paraffined paperboard containers are often used for berries to be frozen and sold at retail. They are also occasionally employed for peas and some other frozen vegetables. If constructed of heavily paraffined cardboard they are satisfactory for most frozen fruits, fruit juices and vegetables. They are reasonably water-proof and fairly moisture-vapor-proof. These containers cannot be used in the Birdseye Multiplate Froster for the ends do not make perfect contact with the freezing plates, (Continued on page 66)

8. Prepared fish fillets are individually wrapped by the Gorton-Pew Fisheries in Sylphrap-Sylvania cellophane. Photo courtesy Sylvania Industrial Corp.

9. The paraffined cup is here used for a delicate product newly packed as a frozen food. Photo courtesy Gorton-Pew Fisheries Co., Ltd.





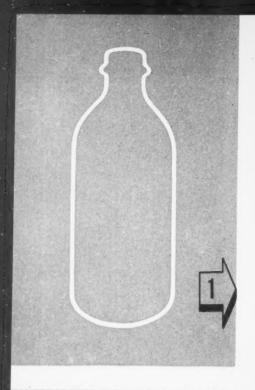


"TEASERS" INTRODUCE NEW CAN LABELS

WHEN A PAINT MANUFACTURER REDESIGNS his can labels and devises a system of product and "line" identification, that, in itself, is news from a packaging standpoint. When the labels prove to be of unusually sound design—as in the case of the new group developed by designer Harry H. Farrell for The Martin-Senour Co.—the fact is all the more notable in contrast with the many poor and ill-conceived labels to be found in this particular field. Yet neither of these points are the most notable in the recent history of this company. Far more interest will be shown, no doubt, in the way in which the firm has developed dealer interest in these labels over an extended period of time, prior to their actual introduction to the trade. By the use of unusual methods they have "teased" the interest of jobbers and dealers to a point

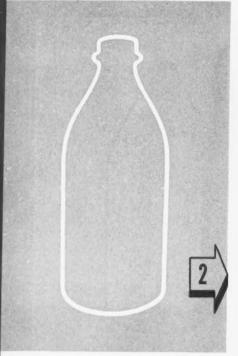
where when the labels actually appeared, the entire trade was waiting with almost bated breath for the event.

Quite a few months ago, Mr. Farrell was commissioned to develop a new basic label which would simplify the company's imprinting problems and unify the entire group of lines, both for identification purposes in the trade and to achieve better and more understandable display in retail stores. The design adopted is essentially simple, consisting of a horizontal band of black, with reverse lettering describing the type of product contained in each can. A vertical yellow band carrying the company name and the product name and number imprint was flanked on either side by bright bands of color, fading off, at the point where they join the yellow panel, to a stipple effect. These side (Continued on page 114)



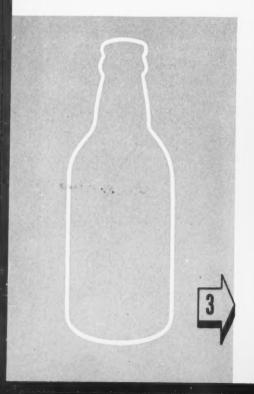


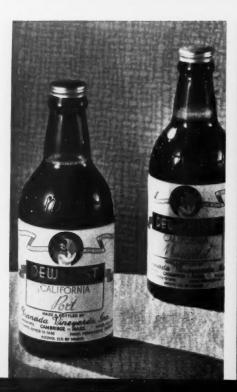












Interesting, not merely as a glass container problem but as a demonstration of how packaging ideas which solved the problems of one industry may frequently be drafted to solve the problems of seemingly unrelated industries, are these "Stubby" containers. We are indebted to the Owens-Illinois Glass Co., designers and manufacturers of these containers, not merely for the photographs which illustrate this article but for much helpful technical data and historical information.

Here illustrated is the same bottle in three slightly different variations of con-

ONE NEVER KNOWS, DOES ONE?

ONE NEVER KNOWS, IN DEVELOPING A NEW package or container, just how far the change will lead and how extensive its advantages will become. For packagers have learned, in recent years, to borrow extensively from the packaging experiences not merely of their own competitors but of other and, it would seem, utterly different industries. An interesting example of this sort of praiseworthy "borrowing" may be seen in the way in which fruit juice and wine packers have adopted the so-called "Stubby" bottle for their own products, finding in it not merely the advantages originally built into this bottle with the brewing industry in mind, but other advantages which were hardly contemplated when the bottle designers sought to meet the brewer's needs.

The "Stubby" bottle was originally developed to meet the requirements of certain brewers who were faced, since Repeal, with new competitive and marketing conditions. The industry needed a container of lower cost than the standard beer bottle, one that would require less warehouse space, that would permit easier handling in the brewery and greater convenience in the home. Recent freight rate increases and the prospect of still further rate raises in the near future lead them likewise to demand a bottle of lighter weight that would enable them to cut freight costs and thus widen their competitive range.

Unlike many other industries where packaging progress has been consistent, the standard bottle of the brewing field was a traditional hangover from the pre-Prohibition days and thus the transition from the bottle of 20 years ago to a new form which would meet new conditions was, in this industry, made abruptly, whereas in other fields changes to new forms of packages took place in a much more gradual fashion.

The new bottle had to be of economical light weight for shipping long distances, yet sturdy enough to stand the normal abuses to which it would be subjected in high speed filling, capping and labeling machines. Meanwhile changes in home storage conditions—particularly those induced by the introduction of automatic electric refrigeration—had set up a completely new set of space requirements for home convenience. To obtain the ideal light weight and the proper height for the new bottle, it had to be ingeniously designed with very careful consideration being given to the bottle contours to insure proper distribution of glass. To permit production at moderate cost on modern automatic bottle-blowing equipment, decoration had to be held to a minimum while still providing sufficiently attractive design to appeal to the consumer market. Finally, consideration had to be given to adapting it to present packaging equipment so that the savings effected by the use of a new bottle would not be lost-even temporarily-through any requirements for special equipment.

The bottle provided the brewers in 1935 was a 12-oz. container—of capacity equal to that of the familiar tall bottle—which stood only $6^{1}/_{2}$ in. in height. In addition to its stowing ease, it possessed great stability on the table and an attractive appearance. It provided the brewer with a weight saving of from 12 to 27 per cent and a corresponding reduction of outgoing freight costs. Reduced weight not only lowered shipping container costs, but permitted more compact stacking in warehouses and, with more stable bases, permitted speeding up of the production and filling lines.

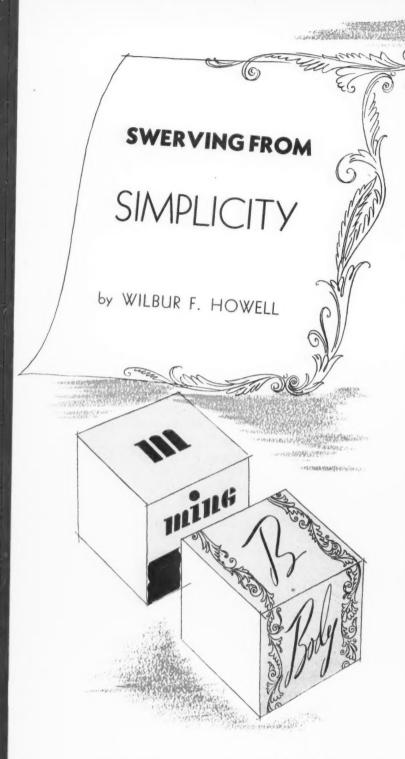
The combination of these features came so close to meeting all of the requirements of the brewing industry for a suitable glass container that by 1937 the "Stubby" bottle, and a large-capacity "big brother" developed around the same time, accounted for about 26.8 per cent of all packaged beer sales.

Meanwhile, packers of fruit juices, tomato juice, catsup, wine and a host of other products—packers who were not by any tradition limited, as were the brewers, to the use of a single standard type of container—began to investigate this new bottle the brewers had adopted, because it seemed to offer to them advantages very similar to those gained by the brewers. Particularly in the case of certain manufacturers who desired the visibility of glass but who hitherto had found costs, when using glass, too high to meet competition, the new bottle, with its lower filling and shipping costs, offers a marked and definite attraction.

Advantages were, in fact, found by some firms that were not originally contemplated when the bottle was designed as a "brewer's container." Thus the shape of the bottle was found to lend (Continued on page 62)

tour, adopted to solve the specialized problems of a number of different industries. Note how the appearance of the completed package varies with changes in label and closure treatment and with clever utilization of the color of the bottle's contents.

The primary advantages of the new container—namely light weight for shipping, low center of gravity, ease of storage in warehouse and the home and convenience of handling—are, of course, carried over irrespective of the industry which the bottle serves or the product which it contains.



AFTER DUSTING OFF THE OLD TAIL-COAT WE sallied forth to the first formal dinner of the season. Looking around the dining room, one could not help realizing that in dress design, at least, we are entering a new era. The strongest impression impinging upon us was a riot of color, of fanciful designs and rich materials. One tall girl blazed with sequins of different colors—not the fish scale variety of former burlesque beauty, but sequins in scrolls, arabesques, in lines fantastic and exotic. There were head dresses and slippers worthy of a Maharajah's admiration.

All in one evening, at New York's St. Regis or Rainbow

*Secretary Robert Gair Co., Inc.

of a Maid of Athens, a Siren of the Nile or an East Indian Princess, sari and all—these houris costumed with a spendthrift lavishness, in a mode of romance and fragility, while the same dainty feet, but lately stamping through the "Big Apple," move in measured rhythm to the strains of the Strauss waltz.

The violent contrast to the sveltness which had be-

Room, one may see the incarnation of the originals of a Goya or Watteau portrait, a lavishly draped counterpart

The violent contrast to the sveltness which had become a synonym for smartness in the past few years led one to look around generally to see if this trend is prevalent in other fields of design.

We find clues everywhere. Everyone has noticed a leaning in smart shop window decoration toward the baroque and the rococo. Interior decorators have abandoned the patent leather white and the beige and have become reconciled to color once more. In furniture, the pure period room has succumbed to a clever mixing of periods by using one to emphasize the other; for instance, ornate Venetian mirrors in a streamlined modern room. Carpets are more colorful and more decorative. The rhumba gives way to waltz music, less primitive but more romantic. Certain advertisements of New York department stores are full of arabesques and decoration. For several years Victorian type faces have been forging ahead in popularity. Today many women's hats require rich materials and workmanship in contrast to the simple toque which over-stayed its usefulness. Women's shoes are full of color and intricate in designsuede and gabardine, not as practical but more flattering than ordinary leather, are popular in rare and wonderful hues and color combinations. Plain silver and gold calf are not rich enough for evening wear, the materials running now to brocades, ribbons, paillettes, jewelled ornaments and clasps. Lingerie goes back to lace and embroidery, and flowers and feathers, streaming veils and ribbons again have a place in the milliner's shop.

The evening party of today, with the great variety of styles, resembling a fancy dress ball, indicates a transition period in style. When stiff, high-back collars vie with Directoire and Post Bellum periods, there is a conflict of trends which is likely to resolve into a more dominant direction, probably toward the more complex and luxurious. History seems to show a series of cycles in style, from extreme simplicity to over-elaboration, repeated as often as those who set the styles experience a change from thriftiness to extravagance. Probably there will not be a long-term trend toward elaboration in design—cycles formerly measured by dynasties are now timed by the prevailing economic position of all the people—there being no longer an aristocracy, (Continued on page 78)

The opinions expressed in this article are those of Mr. Howell and not necessarily of the editors. MODERN PACKAGING would be glad to receive comments and discussions of the points here expounded.

NOVEL TOP IDENTIFIES NEW DRUG LINE

WHILE SOME NEW-PACKAGE SPONSORS CONtent themselves with unique and attractive design, others continually seek construction and convenience features which will both identify the item to the consumer and endear him to it by affording some special added value, usually sanitation or convenience in use. Admittedly, the second method is the more difficult of the two, but it offers far higher rewards when it is successfully employed.

Thus the Royal Manufacturing Co. of Duquesne, in planning its new Saxon line of dry-packed drug staples, sought and found a means of pleasing both druggists and consumers via a new type of inverted plug top used in combination with a paper inner seal. The closure, on which patents have been applied for, incorporates many of the good features of both the friction-plug and the slip-cover. It may be easily opened with coin or knife. The

lid may be used as a measuring device. The cans are equipped with recessed bottoms which makes stacking by the dealer extremely convenient and thus affords substantial savings of space on shelf or counter. Finally, the use of rectangular rather than round fibre-bodies provides additional space-saving features both in the store and the home, since such packages occupy a smaller shelf, area per ounce of contents.

Nor has eye-appeal been neglected. The attractive blue and white color scheme of the label is carried over to the inner seal and to the metal closure which is lithographed in the same shade of blue.

The space-saving feature has permitted the company to develop a series of floor and counter displays which occupy less than the usual space that would be required to carry a given quantity of merchandise and thus, once again, to serve dealer convenience.

The new Saxon closure inverts the usual friction-plug to achieve advantages of both this and the slip-cover type. Rectangular fibre-bodied cans permit the use of small-area floor and counter displays.







packaging pageant





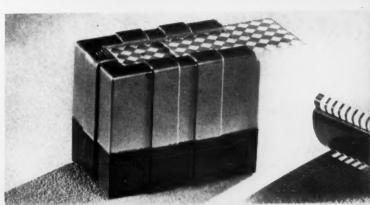


- 1. Utilizing special packaging materials as a means of dressing up standard merchandise for holiday and gift purposes is a practice well understood by the Cuesta, Rey Co., manufacturers of Tampa's Choice cigars. Breaking away from established precedent, the modernized cigar packages utilize a fabric design motif, with printing on the outer surfaces of the box confined to the necessary Government tax stamp. A card bearing Christmas greetings is inserted under the cellophane wrap, during the holiday season, thus converting the package into a gift item. Fabric wraps by the United Cotton Products Co.
- 2. This is a package designed not for sale to the consumer, but to introduce the new "Adventure" perfume to retail and chain store managers, thereby emphasizing the extent of the advertising promotion Park and Tilford are placing behind the product. The box is a domed-top reproduction of an old pirate's treasure chest. A tray inside, with fabric "lifts," carries a circular describing the advertising back of the product. Below this tray, set into a die-cut hole in a platform simulating "pieces of eight," is found the perfume for which the entire package was created. Produced by G. A. Bisler, Inc.
- 3. After exhaustive tests in the laboratory and in the field, the Duart Sales Co., Ltd., is offering a milk lotion in a new modern package. Designs for specially molded bottles were worked out in conjunction with the Hazel-Atlas Glass Co. The bottles, utilizing horizontal step-backs at top and bottom and horizontal fluting at the side, high-light the milky whiteness of the product. Further emphasis is obtained through the use of reverse white lettering on a red label, with Armstrong white molded caps to complete the harmonious ensemble. Carton design duplicates that of the label, thereby affording effective mass display.

- 4. A novel innovation in cream jar closures is advanced by Dorothy Gray for its Cream Concentrate. The glass jar here utilizes an enamelled metal closure with Lucite top. Gold foil is used as background for the transparent material with color applied to the molded in flower. This attractive jar, with colorful top resembling cloisonné, is one that will effectively enhance the appearance of the feminine dressing table. Jars are by the Hazel-Atlas Glass Co. with Lucite tops molded by the Mack Molding Co.
- **5.** The Lionel Razor Blade Co. introduces the Blapak—a compactly designed container for new and old razor blades. The device, produced in Bakelite, molded in an assortment of colors, serves several purposes. It holds 25 double-edge blades, a new blade moving to the top automatically as each predecessor is taken out. A specially designed slot and compartment in the bottom is employed for the insertion of used blades, thus eliminating the danger of leaving old blades lying about. Container by the Accurate Molding Co.
- 6. The innovation of a package for food strainers came as a result of a survey conducted by The Washburn Co. It was found that an average of four food strainers of various sizes and meshes were needed in today's kitchen and it was determined that few housewives realized that strainer-mesh made a distinct difference in straining quality. Based upon this data, a package was developed to hold a full set of four strainers and, in addition, a "roll-thru" masher and a newly invented wall rack were added. All items are included in a striking orange and black carton which not only illustrates the complete set, but pictures and describes uses of the different sizes and meshes and the use of the rack.

7. A gift to delight a pipe smoker's heart is found in the John Middleton's blending kit which contains nine types of leaf, each packed neatly in individual containers. A smoker's commissary, complete with plastic jigger cup for measuring and a booklet of instructions and tested formulas, the unit offers broad opportunities for experiment in an effort to find a blend best suited to the individual taste. An amber cellophane sheet seals the inner container in place and serves to make substitution impossible. All metal containers are made by the Liberty Can Co. The measuring jigger is by Lusteroid Container Co.

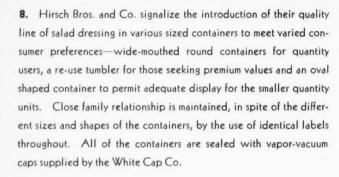














Quinlan, appears in a package whose feminine appeal is carefully enhanced by the display features of its outer container. The imported French bottle is set upon a three-tiered base which serves as a stage setting on counters, under glass or in window displays. The labeled box top serves as a display panel to be used in close juxtaposition with the box base. Under proper lighting conditions, the metallic coated papers used on the box, suitably focus light upon the lens-facets of the bottle itself. The product name appears on a transparent label on the flat front face of the container. The label is manufactured by Palm, Fechteler and Co. and set-up box by the Karl Voss Corp.





10. An effective combination of utility and merchandising value is found in the Lucite pouring spouts for two brands of Oldetyme Distillers liquor. Ben Burk, Inc., has adopted a transparent jigger cap for its Old Mr. Boston line. The new closure, which serves as a measuring cup, is molded of transparent amber and has the trade mark permanently molded in the top of the closure. Bar pourers are injection molded by the Plastics Division of the Erie Resistor Corp. Transparent jigger caps produced by the Terkelsen Machine Co.

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11. Bakers and confectioners have enthusiastically received the Jos. Middleby Company's "Midco" liquid food coloring kit. The set, consisting of an attractively finished mahogany box, contains eight 2-oz. bottles of coloring which fit snugly into individual pigeon holes formed by wood dividers. The bottles utilize Anchor molded caps with droppers attached. A chart on the inside of the cover indicates various combinations of the colorings necessary to obtain any desired variety of shade. Bottles are supplied by the Glasco Products Co.

packaging pageant







12. An effective merchandising innovation has been introduced by the Newton Products Co. in connection with the marketing of its Rival brand peanut butter. Five peanut butter recipes are lithographed on three series of caps, thus effectively increasing the usefulness of the product to the consumer and hence, eventually, increasing the demand for this product. The attractive 16-oz. and 32-oz. jars have wide mouth finish of equal size so that the same red and gold caps can be used on both sized packages. Caps and jars supplied by the Owens-Illinois Glass Co.

13. A new product, Cetron, designed for use where lemon juice is required, is being offered by the Mission Dry Corp. Handsomely and conveniently packaged in 8-oz., 16-oz. and 32-oz. carafe-type glass containers, ample opportunity for an appetizing display of the product is obtained. The narrow necked container assures the slow pouring necessary to a flavoring product of this type. With its graceful proportions, the jar can well find use as a decanter after the contents have been consumed. Containers supplied by the Owens-Illinois Pacific Coast Co.

14. Increased merchandising value is acheived in the redesigned packages for Mary T. Goldman gray hair restorer. The new presentation embodies convenience features formerly lacking. A glass vial of capsules, used in preparing the product for use on the hair, and a plastic measuring cup, to assure correct proportions of the liquid, are supplied. A modernized version of the old style trade mark is retained on the redesigned package, thus identifying the product to consumers familiar with the old container. The new bottles are sealed with Armstrong Artmold caps.

Four years' progress is reflected in the contrast between the glass containers first used for Murphy's a la Carte Colors and the "Unitainer" tubes recently adopted. While both are "one-shot packages", containing exactly the amount required to color an entire can of paint, the new tubes have the advantage of being easier to empty and lighter in weight.





AT LAST-A NEW

idea for paints

IN ANY SINGLE YEAR, CLOSE TO 30,000 NEW packages are designed and produced in the United States alone. And yet hardly one-tenth of one per cent of all these packages represent anything more than new designs—good or bad—carrying out old merchandising schemes which have been tried and proved in the past and are used once again with only the slightest variation.

It is the one-tenth of one per cent of packages that embody new ideas in package construction, in utility, in merchandising, in dealer convenience and in product presentation which are the milestones of progress in the packaging field. As with all significant achievements, such packages are seldom the product of a momentary brain storm. They don't spring complete from their creator's brain, but they rather arise after much hard work and a long series of experiments in which the new basic idea is gradually revised and refined until it becomes a completely practical reality.

Such has been the experience, to cite a single instance, of the Murphy Varnish Co., which is today successfully marketing paints in a manner which has caused the once sceptical eyebrows of competitive manufacturers to be raised more in amazement and chagrin than in disdain. For this company and another firm, the Bennett Glass and Paint Co. of Utah, have, by cleverly combining a number of selling ideas and package innovations, developed an entirely new merchandising program for the paint retailing industry.

To understand just how revolutionary the Murphy program actually is, it is necessary to examine the conditions which confront the average paint dealer. In order to meet the demands of amateur painters, housewives and even some professional painters, he must carry pre-mixed colors in large variety and in a full range of can sizes. Thus in order to move any paints at all, he must make extremely large investments-relatively speaking-and must maintain this investment, tied up in stock, if he is to satisfy the ordinary requirements of his customers. Under such circumstances, two things are constantly happening-both undesirable. Either the dealer holds his inventory down to the point where he must frequently fail to meet the exacting demands of a large proportion of his customers or, on the other hand, in his attempt to meet every demand, his inventory mounts to the point where deterioration of products begins to set in on slow moving items. At this point, too, tied up capital makes sales far less profitable, if profitable they be at all.

Seeking to untie this Gordian knot, paint manufacturers have in years past experimented with types of packages other than the traditional paint can. They have sought to supply dealers with one base paint and measured quantities of mixing colors as a means of reducing the investment in stock. But when these attempts were made some two decades ago, paint manufacturing technique had not advanced (Continued on page 82)



tional packaging characteristics. On viewing the collection, one is struck immediately by the brilliance of color. Our Northern friends do not restrict themselves to greys and tans, but seem to prefer, rather, to choose one or two striking colors for any package and then to use these colors in a variety of tones to achieve truly remarkable effects. Ingenious use is made of the brilliant whites which seem characteristic of Scandinavian boxboards and the sharpness of this snow-whiteness is further emphasized by its contrast with the strong primary colors used.

A pronounced trend may be noted—as in this country—toward the use of photographic reproductions of the products within, on these containers. This use of photography may, in part, be explained by the comparative—and inexplicable—absence of transparent cellulose windows on Swedish cartons. Both photographs and drawn illustrations are frequently carried around corners of packages to achieve unusual forms of display, a practice only occasionally attempted by domestic package designers.

Many of the packages demonstrate an unusual aptness in appealing to the child's mind or to the play-instinct of the adult. Thus we find a coffee carton for a brand known as "Domino," equipped on side and back with reproductions of a full set of these toy blocks and with instructions to the user to cut these out after the contents of the package have been consumed. While this is an extreme case, it reflects a trend noticeable, to perhaps a lesser degree, in many another instance. Quite a few of these packages fold or unfold to form novelty toys or semi-toy displays. Others are colorfully illustrated with characters drawn from the animal world, from historical sources, or merely from the vivid imaginations of good figure designers—characters whose enthusiastic, playful actions on the package would seem to establish a favorable mood on the part of the potential consumer.

The entire collection, numbering some 350 packages, is largely representative of the work of the Sveriges Litografiska Tryckerier, one of the largest package suppliers in the country. It will be on exhibit at the New York exhibit rooms of Modern Packaging during the month of April and arrangements will be made for exhibits in further cities at later dates.



COLOR GIVES SPAM "TASTE" APPEAL

SIX MONTHS AGO, GEORGE A. HORMEL & CO. introduced a new package for a new canned meat product to be marketed under the name of "Spam." Since then sales have mounted until, in late December, they stand, in test areas, 165 per cent over those of a similar luncheon meat marketed a year ago. In side-by-side store displays, without the help of advertising, the new item has outsold a previous product by a very substantial volume in spite of a two-cent higher retail price.

As might be expected there is a reason . . . several reasons, in fact. Most apparent of all has been the eyeappeal (or perhaps the "taste" appeal) of the package label, a full color creation in which the major front panel illustration vies, in deliciousness, with the five smaller color panels which illustrate each of a group of recipes set in checkerboard fashion on the sides and back of the can. During introductory tests, dealers were allowed to create their own displays, the purpose being to study the dealer's reaction to the package. In case after case they reversed every fourth or fifth can so that the recipes and illustrations would show and, in countless instances, the casual shopper stopped to examine the reversed cans and ended by making a purchase.

The planning of the entire package was carried on as an integral part of the planning of the product's merchandising and advertising campaign. Since the product is offered for a host of different uses—hot or cold, diced, baked or fried—it was decided to picture these uses right on the package rather than in a recipe book. The final design, by Alfred Clague, thus serves as a complete recipe book, the cover of which is formed by the front panel of the label.

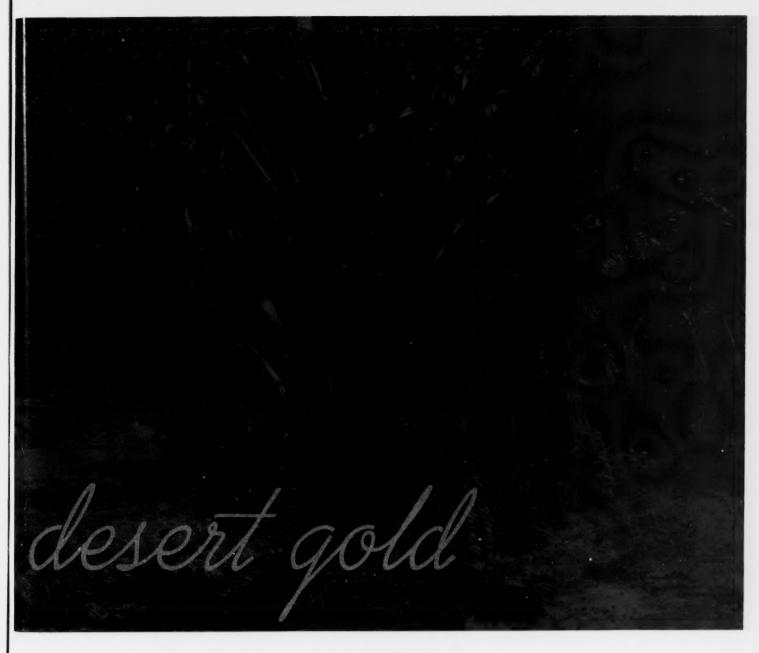
A characteristic type of lettering has been carried over from the face of the package to all advertising, so that every use of the word ties in with the appearance of the package. And advertising likewise emphasizes the various forms in which the product may be served by the use of recipes shown in conjunction with color illustrations. Thus, the package ties in perfectly and completes the effect of the advertising and store displays, to form a well-rounded and obviously successful merchandising scheme.

It is to be regretted, however, that the designers did not foresee the effect of opening the can by means of a key which removes a horizontal strip about a half inch below the top of the container. While, in a one service can of this sort, the destruction of the brand name might not be considered harmful, the ruining of one of the recipes and its accompanying color illustration undoubtedly lessens the value of the container.

A full color lithographed and varnished label provides eye-appeal for Spam's key-opened can. Photo courtesy Stecher-Straung Lithograph Corp.





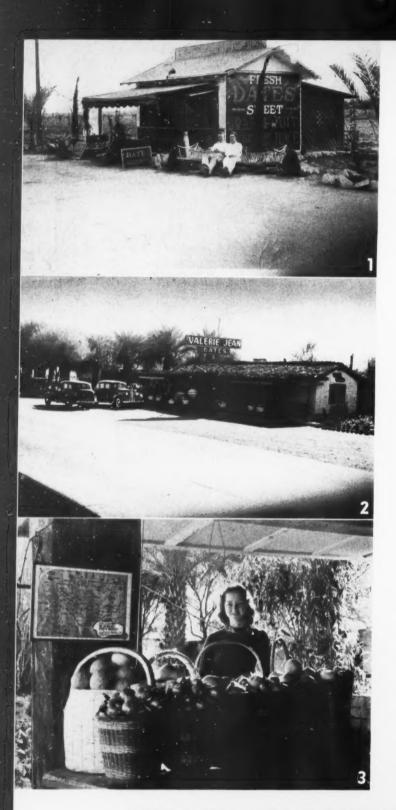


Thermal, Calif., Would Be the Last Place in the World Where You Would Expect to Find a Progressive Packager— Yet Interesting Things Are Coming Out of That Desert

HIGH IN THE SKYSCRAPERS OF NEW YORK AND Chicago, package designers have been heard to discuss the difficulty of giving a mythical something they call "character" to their creations. Truth to tell, when you stand 40 floors above your market, such difficulties do appear. But—though their packages may have other failings—very few, indeed, are the creations which have been developed by the "small men" of marketing, the men who are close to the soil and close to their market, that lack this illusive element which, for want of a better name, is termed "character."

This ability to catch and hold an unusual degree of attractiveness and "fitness" is particularly notable when farmers go to market. Quite a few of the All-America packages of recent years were created by small firms, working close to the farm and turning to packages as a means of marketing their farm products—jellies, honey, apples and similar items.

Most of these individuals or firms, it is true, exhaust their creative abilities with a single package. Not so, however, in the case of R. C. Nicoll, date merchant, merchant and citizen of Thermal, Calif. Working in the heart of the desert, this man and his family have built a veritable garden spot to which come thousands of tourists every year and to these people he presents the product of his own orchards—if date trees constitute an orchard—in packages so thoroughly attractive, so admirably fitted to the products they carry, that they have served by far as the finest advertisement the establishment could have possibly utilized.

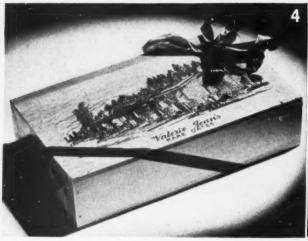


Thousands who have seen these packages have made the journey to Thermal, going many miles out of their way, and literally tens of thousands, throughout the United States and many foreign countries, have turned to the mails to secure their portion of the fruit from one of the few domestic sources of dates.

It was not all easy going for proprietor Nicoll or his family, who turned to the desert more than 20 years ago. Repeatedly during the early periods of struggle, he and his wife promised each other to leave the desert "after just one more year." Repeatedly the year passed and the promise was forgotten.

In 1928, he moved a 12 ft. by 16 ft. shack up to the highway and began to sell dates and date-milk drinks to passing motorists, and then like Emerson's mouse trap builder, the world began to beat a path to his door. That path has today become a six-lane concrete highway and as Valerie Jean, the Nicoll's young daughter, has grown from childhood, the 12 ft. by 16 ft. shack has grown into one of the largest roadside stopping-places in Southern California. The bare desert which surrounded the shack in 1928 now blooms in orderly rows of blossoming date trees. Along the highway leading to the shop stands thousands upon thousands of petunia plants and near the new house, which the Nicolls have built themselves, are to be found six acres of Tabarzal trees, all developed from a single date palm during the course of 30 years. These are among the finest and most valuable of all the varieties of date tree. Here, where

1. R. C. Nicoll's shack in 1928 was little worse but certainly no better than the ordinary roadside stands which clutter the highways.
2. Ten years later a broad concrete highway brings one to Valerie Jean's shop, set amidst acres of shade-giving blooming date palms.
3. Valerie Jean herself before a display of desert fruits in native Indian baskets.
4. A plain pine box, imprinted with a picture of the shop, cellophane wrapped and ribbon tied, makes an excellent presentation and mailing package.
5. Hand-painted gourd bowls are cellophane wrapped. Note how the embossed foil label fits into the design formed by the dates themselves.
6. Metal boxes are shipped in paperboard outer containers, wire-bound and bearing the embossed foil Valerie Jean label.
7. This box of dates was shipped 12,000 miles across continent and ocean, yet retained perfect condition.
8. For true date lovers the shop offers these steel-bound kegs, paraffine sealed.





MODERN PACKAGING

the fruit-laden palms change from green to yellow to red and then to black, as the dates ripen, stands a veritable paradise within the desert—"Desert Gold," indeed.

As might well be expected, travelers are not content to merely stop in the shade of the date shop's wide veranda for a cooling drink and a date for two. Thus, the Nicolls have turned quite naturally to packaging and have had the good sense and the good taste to make their packages carry much of the atmosphere which they have built around their shop and orchards. Not that they have discarded modern processes or modern materials. They have merely cleverly combined these with the available local materials in a manner which best sets off the products of the valley date gardens.

Thus one finds hand-painted gourd bowls holding the finest and largest dates, wrapped in glistening amber cellophane and labeled with embossed metal seals. One finds, too, large display baskets, made by neighboring Papago Indians, of arrow weed and other indigenous materials. For mail shipment, wooden, paper and metal boxes are used, decorated with colorful reproductions of the shop itself and its surrounding oasis. Finally, and perhaps the finest of all these packages, one finds quantities of dates packed in a small steel-bound wooden keg, wax sealed on top, similar to those used in shipping dates—a thousand years ago—across the Mediterranean.

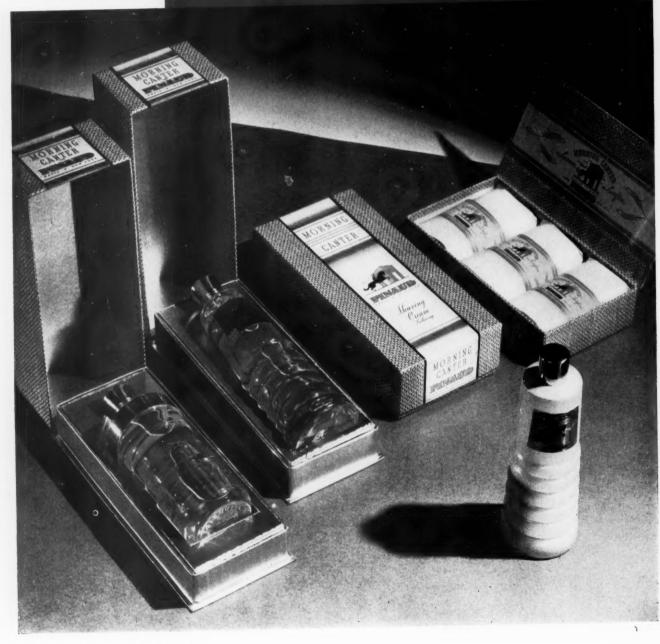
A large part of the attention that has been paid to packaging arises from the good taste these people possess and from their appreciation of the advertising value of a tastefully decorated product, particularly in this instance where such advertising is the sole means of acquainting the world with the existence of the Valerie Jean oasis. Yet the packaging efforts have their practical aspect too. Thus as an experiment, a box of large soft Tabarzal dates were shipped from Thermal to London, England, and back again—a distance of 12,000 miles, twice across the Continent and twice across the ocean. Upon comparison with unshipped dates, the contents of this package were found to suffer no deterioration whatsoever, and the package itself is now on display at the Thermal shop in an ice cooled cabinet, where it is used to convince skeptical purchasers that soft dates, with sufficient sugar content, can be shipped any place if properly packed.





FEBRUARY 1938





TWO ROADS ARE AVAILABLE, ALTERNATIVELY, for the manufacturer who prepares to launch a new line of toiletries or similar products.

He may, on the one hand, seek to unify the family group by using packages of the same or similar size and shape and, inasmuch as it proves possible to do so, similar materials. Or, he may adopt one single element of his packaging as a sort of theme and carry this through every item in the line as a means of achieving a family resemblance and unity that will hold the group together on display, in the mind of the dealer and, most important of all, in the eyes of the consumer.

It is this latter course which Pinaud, Inc., has followed in designing its new Canter and Clubman lines of men's toiletries. Taking a single element, the set-up boxes, in which each item or group of items are sold, as the "unit" of family relationship, the designers freed themselves from the necessity of forcing any other parts of the packages into a non-functional relationship with other packages in the family group. Each wrap, bottle, closure, tube and jar could be designed for individualized beauty and utility.

Thus, large, lacquered brass stoppers could be developed for bottles—stoppers which would be sufficiently massive to serve as a strong decorative note, and at the same time, to fit the hand for opening and closing. So too, could a wooden jar be developed for talc, contrasting in tone and color, but not in shape, with the glass companion jar for after shave lotion. Every material and every package part could be and was selected to build up the impression of elegance and the attractiveness of each individual package, without particular regard to family appearance, since the sponsor could rely upon the set-up boxes to build this latter impression and unify the line.

It must not be inferred, however, that family similarities other than those of the set-up boxes were deliberately avoided. On the contrary, labels, stoppers, and types of lettering all have a common relationship. But this similarity is nowhere forced but rather occurs after the individual needs of each package have been taken care of.

Turn then to the set-up boxes. Each has been adapted, in its form, to the display requirements of the container within, thus once again reflecting this desire to design packages with individual quality in addition to a general family resemblance. Some have hinged lids and extension bases, others telescope, the choice depending in each case on the form of construction most favoring adequate display and convenience in use.

Yet, a surprising uniformity is achieved by the use of gold pyroxylin papers on all bases and a woven cloth design, reproduced in shades of gray on all outside surfaces. The former serves to set off the various packages, the latter provides a fitting background for the box labels. These labels, long bands running either hori-

Sturdy, manly set-up boxes serve to tie together the varying inner packages. The specially made bottles thus are tied in with the wooden talc container, the collapsible tube and the paper-wrapped soaps despite dissimilarities in size, treatment and materials.



Pinaud's Morning Canter tube, for shaving cream, uses gold, red, green and black on a cream background in a pattern very similar to that of the labels used on all boxes of the line. Interesting note is the closure which spreads to afford a base upon which the tube can be stood in the medicine cabinet.

zontally or vertically across the tops and sides of the boxes, utilize a gold, red and black nameplate and trade mark set on a rich, cream colored background with additional names and decorations in green and black. Some are edged in black, others use gold borders and yet, nowhere, is the onlooker's eye annoyed by these differences which seem rather to give the whole group a character and fitness often absent when design has lavishly followed a rigid formula.

The same scheme is carried into the various packages. Collapsible tubes have ingenious inverted cone closures which permit them to stand up on their heads, as it were, on the bathroom shelf. Both wood and glass containers use foil labels of gold with red and black reproductions of the nameplate and trade mark designs. The soaps are wrapped in cream colored, embossed papers, banded with labels that are identical with the horizontal band on the soap box.

In short, for once, the designers of a family group have recognized that not every family consists of nothing but identical twins. They have given individuality of each member of the group while carefully preserving a resemblance to Pinaud, pere.

Credit: tubes manufactured by Bond-Penn Tube Co.; set-up boxes by Wallace Paper Box Co; bottles by Carr-Lowrey; lacquered brass stoppers by Bridgeport Metal Goods Corp.; labels by Richard M. Krause.

REDESIGN WHERE THE PACE IS SLOW

IN SOME INDUSTRIES, PACKAGE REDESIGN has assumed a seasonal form and seldom is any design used for more than a single year. In other industries, the average life of a design extends anywhere from five to fifteen years without substantial revision. Among table syrup manufacturers an extreme conservatism has prevailed and many are the packages which have not seen a change for thirty years or more.

Thus, when the Union Starch and Refining Co., makers of Pennant Syrups, approached the problem of redesign, their outlook was naturally cautious and conservative. Placing the problem in their label supplier's hands, they sought modernization and, particularly, merchandising advantages in their new labels but demanded the retention of a number of identical recognition features.

Working within these limitations, the designers modified the old labels in a number of respects. These modifications appear more significant when judged in comparison with what went before and the criticisms which might be leveled against certain features of these designs, were the critic to consider them in the abstract as new package presentations, must fall by the wayside when ample consideration is given to the limitations placed upon the designer by the conservatism of the field.

The new labels retain the trade mark of the product name imprinted upon a flying pennant. They retain the several spots of relatively small type deemed essential as consumer information by the product manufacturer. They retain, also, the color differentiation between the four varieties put up by this company, but restrict this identifying color to a single horizontal panel occupying approximately one-third of the entire label area. Upon

this panel in red, blue, yellow or green, according to the type of product identified, appears the major portion of the informative matter and company identification which each label carries.

The new designs depart, however, from the former labels in two significant respects. First, almost two-thirds of the label is devoted to the illustration of uses for the product—illustrations in full color of pancakes, wasses, biscuits, pies, cakes and cookies. Such illustrations—obviously of great merchandising advantage—are completely lacking on the old labels.

Secondly, by the use of the color panel form of design and the repetition of the identical color illustration on every package, the entire group of packages is unified as a line in a manner which facilitates display as a group and permits the dealer to explain the advantages of each variety of syrup and to encourage the purchase of one or more types according to the needs of the consumer.

Reluctant to launch these labels on an unprepared market, the company sent samples to jobbers and brokers throughout the country and solicited their comments. So unanimously favorable were these responses that the decision was immediately taken to discontinue the old labels entirely and substitute the new ones. When this was done, an immediate rise in sales was experienced—a rise which has continued to date. No doubt this sales increase is, in some measure, due to dealer and jobber enthusiasm engendered by the mere fact of change, but in greatest measure the increase in consumer responsiveness to the product is directly due to the increase in consumer information, in colorful pictorial form, which the new labels provide.

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Surprising contrast, for so conservative a field, is seen in a comparison between the new and old labels for Pennant Syrups. The new designs feature full color reproductions of various suggested uses for the product and thus incorporate merchandise appeal hitherto lacking. Photo courtesy United States Printing & Lithograph Co.





MODERN PACKAGING



8 FINGERS TO THIS HELPING HAND

NOTE: Since this advertisement was prepared, we have added three more branch offices, the better to serve Burt clients.

Note the addresses in Springfield, Cincinnati, and Minneapolis which are listed below. Let us suppose you have considered the advantages which Burt's giant facilities can give you in purchasing cartons and boxes. Lowered costs, controlled quality, uninterrupted production and delivery when and as wanted.

Let's discount all this. But what about service? Can you work well with a plant located far from your own? Will there be waits and delays when a problem arises? The answer is easy to find. For Burt long ago met and solved this problem.

In seven strategically located offices, Burt maintains staffs of factory trained engineers and packaging experts . . . men who talk your own language . . . men who think in terms of your sales rather than "our boxes."

They're not glad handers . . . who have to refer everything back home. But, in a very real sense, they are "helping handers" . . . who can aid you toward a better package or package-family and who have the complete backing of the great Burt central organization.

F. N. BURT COMPANY, INC.

NEW YORK CITY 630 Fifth Avenue Room 1461

CINCINNATI 221 Walnut Street Telephone: MAin 0367 PHILADELPHIA

A. B. Hebeler

P. O. Box 6308

P. O. Box 6308 W. Market St. Sta. MEMPHIS Frank D. Jackson

2150 Washington Ave.

NEW ENGLAND
A. B. Bacon SPRINGFIELD
BOSTON P. O. Box 214
120 Boylston St. Highland Station

MINNEAPOLIS
J. E. Moor
3329 Dupont Ave. South

CHICAGO 919 N. Michigan Ave. Room 2203

LOS ANGELES
Louis Andrews
623 1/2 South Grand Ave.

CLEVELAND
W. G. Hazen
P. O. Box 2445
E. Cleveland. Ohio
CANADIAN DIVISION
Dominion Paper Box Co., Ltd.
469-483 King Street, West
Toronto 2, Canada



The velour covered box is equipped with two drawers to hold sox and ties and thus encourages a purchase of these items in addition to shirts to make a complete gift. Monograms are attached to the hinged lid of the box after the sale is completed.

CAPTURING "ANYBODY'S" GIFT SALES

SHIRTS AND TIES ARE SO DEFINITELY THE LAST minute, last thought gift items for the hard pressed Christmas shopper that almost every retail advertiser features them in his last week's advertising before the Holiday. But when a nationally advertised brand of shirts, available at standardized prices in dozens of stores in any city, is advertised by a single group of stores—and when those stores don't worry in the slightest about advertising for the benefit of other dealers—there must be something in the wind.

That something, this past Christmas, in the case of the Broadstreet chain of New York, was a set-up box, covered in rich velour and equipped with two tie-holding drawers and a hinged lid over a shirt compartment. For, by advertising the box—initialed by the store with the monogram of the ultimate recipient—Broadstreet's has insured for itself the shirt sales that otherwise

might have gone to any Manhattan shirt retailer.

No evasions characterize the advertising, which, in fact, clearly states that the purchaser will pay half a dollar for the monogramed box. On the contrary, Broadstreet's has gone to great pains to sell a box as a desirable form of gift container and thus, at the same time, has insured itself of a substantial volume of shirt and tie sales that otherwise might, in large measure, have drifted elsewhere in the Christmas rush.

This promotion of Broadstreet's follows a similar operation conducted a year earlier, with a box which received a silver award in the 1936 All-America Package Competition. At that time—as again this year—the company reported a marked volume of business directly traceable to the box itself and the consumer's desire for a gift package suitable for such usually unpackaged combinations as shirts and ties.

DIFFERENT PRODUCTS

BUT ALIKE IN ONE RESPECT





... they all have the EXTRA SALES PUNCH that CEL-O-SEAL provides

TRIM, well-tailored sales packages stand out on the dealer's shelf or counter and invite the buyer's eye. One sure way to give your packages added salesappeal and make them more inviting, is to top them off with colorful "Cel-O-Seal" caps and bands. No matter what type of bottled goods you package, you'll find a suitable cap or band in "Cel-O-Seal" that will harmonize with the other packaging units and provide the final touch of eye-appeal.

Protection for your product is another major advantage that "Cel-O-Seal" caps and bands provide. They make your package more airtight and germ-proof. And when impregnated with your name or trade-mark by du Pont's patented process (U.S. Pat. No. 1997769), they effectively guard against possible illegal package duplication. In addition, the clean, lustrous appearance of "Cel-O-Seal" inspires customer confidence.

"Cel-O-Seal" caps and bands are inexpensive, and are available in a wide range of colors in opaque, transparent, and metallic types. Send us your package complete with a primary cork or cap, and we will apply a sample of "Cel-O-Seal" cap or band and return it promptly without obligation. For full information, write Armstrong Cork Products Company,

Closure Division, 916 Arch Street, Lancaster, Penna.



THERE'S AN ARMSTRONG CLOSURE FOR EVERY SEALING NEED



CEL-O-SEAL

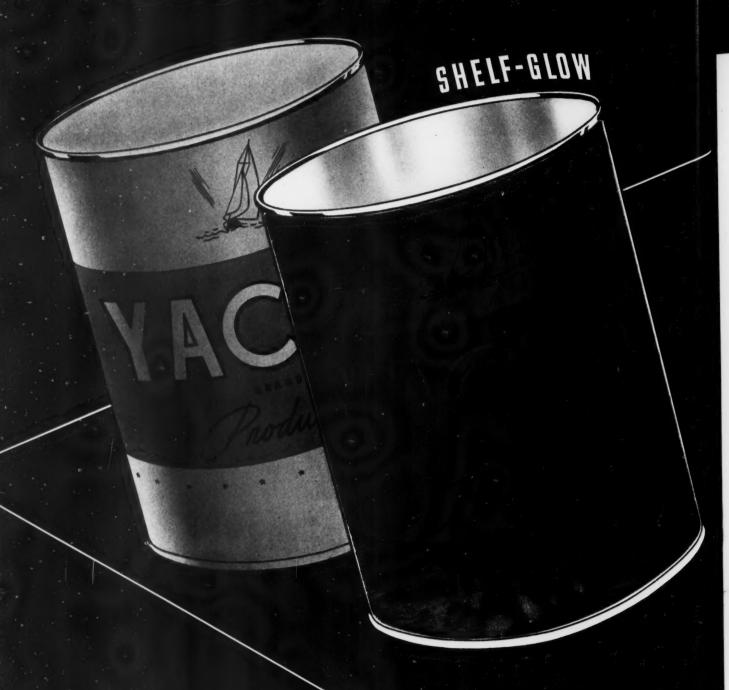
TRADE-MARK

caps and bands

Sold by Armstrong

and du Pont

what a difference



The full ALCOA

aluminum foil makes

. . . lucky for you, cans with Aluminum Foil labels are not too common a sight. Therein lies your opportunity. Use Aluminum Foil labels and your cans* will outsparkle all others on the shelf.

. . . sparkle is closely related to sales. It has a way of persuading more people to say, "I'll take that." They sense in it a glowing promise of better quality.

. . . true enough, these labels cost somewhat more than ordinary paper labels. So does it cost money to advertise and to employ first class salesmen. But you get your return in increased sales and profits.

. . . a word to package designers: New developments have greatly improved the technique of printing on Aluminum Foil. Bright colors, solid areas, and delicate lines are perfectly rendered. Reverse plate printing is exceptionally effective.

. . . as the foremost producer of all types of Aluminum Foil, we have naturally had experience with many kinds of packaging problems. We shall be happy to apply this experience to your own requirements. Write Aluminum Company of America, 2129 Gulf Building, Pittsburgh, Pennsylvania.

*Equally true of bags, boxes, bottles, cartons, and other containers for which Aluminum Foil labels or wrappers may be employed.



ALUMINUM FOIL



A NUMBER OF YEARS AGO, THE SHRIMP INDUStry undertook the grading of its products according to size as a means of providing dealers and large users with classifications suitable to their needs. While this method of grading proved a marked advance over former policy, it unfortunately set the lowest price on the smallest size of shrimp.

These, requiring a far greater amount of hand labor in processing for packing, proved to be the most costly to produce. Hence, packers such as the Pelican Lake Oyster and Packing Company have long sought a means of making these mis-priced crustaceans more profitable to handle. The problem proved all the more aggravating in view of the fact that the smaller shrimp are claimed to be of more delicate flavor and texture than are those in the three larger size classifications.

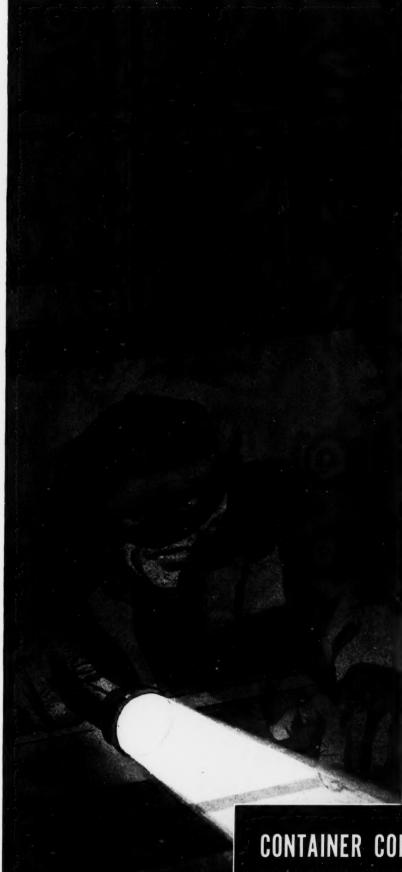
In its search for a way out of this seeming dilemma, the Pelican company led quite naturally, toward packaging as a means of establishing the small shrimp as a "choice" variety, capable of commanding a premium price.

Attractively labeled cans were used, the shrimp being described as being special hors d'oeuvres, and a moderate success was enjoyed. However, it was felt that visibility of the shrimp would greatly increase the sales potential and therefore, in cooperation with the Capstan Glass Company, a buffet style glass jar was developed which serves to display the shrimp in their neatly packed and carefully processed form. Since the jar itself is too shal-

low to permit of labeling, all branding and other information is provided on the Anchor cap which tops the jar. Cap and jar together form a very easily shipped, sturdy ''pancake'' which makes an admirable appearance on display, and permits the dealer to quickly explain the delicacy of the product within by demonstrating visually, the care with which it has been packed. Thus, on sight, the product is established as of a choice variety and, the company reports, dealers find little or no difficulty in obtaining a price commensurate with the production costs of the smaller shrimp.

"The acceptance of these newer packages by our trade has been beyond our expectations," writes S. D. Jastremski of the Pelican organization," and although we have necessarily been forced to place a fairly high price on both the canned and the glass varieties, we feel that we have been justified in our original ideas that the consumer demand, gained through protective packaging, has been even greater than we had anticipated."

Whereas the entire shrimp industry undertakes the packing of small shrimp at either actual cost or at a slight loss—since the greatest demand is for medium, large and jumbo sizes—packaging has changed this previously unprofitable operation for the Pelican Lake Oyster and Packing Company, and may result, if further exploited and promoted, in changing consumer habits—even in the choice of unpacked shrimp—to such an extent that the small variety will command a premium price.

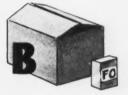


UNANNOUNCED!

You never know when Concealed Damage is robbing your product of its sales appeal and dealer acceptance. Only the retailer knows the toll of this stealthy destroyer—for Concealed Damage often gives no warning on the outside of the shipping case!

Container Corporation of America — largest producer of shipping containers and paperboard cartons — has developed new methods to reduce the ravages of Concealed Damage — by determining the one correct container for each particular shipping job, and by the introduction of special rigidity standards. Our unique method of "Packaging by Prescription" has ended Concealed Damage for hundreds of shippers — and can do the same for you. Ask our representative to explain it.





They look alike BUT—Both shipping cases were "received in good order," but Concealed Damage dented and marred the cartons in "A" because the paperboard was not strong enough to protect the contents. Case "B," conforming to special rigidity specifications, delivered its contents unmarred.

CONTAINER CORPORATION OF AMERICA

GENERAL OFFICES: 111 WEST WASHINGTON STREET, CHICAGO, ILL.
MILLS, FACTORIES AND SALES OFFICES AT STRATEGIC LOCATIONS



MACHINERY DATA

Sirs:

I believe it would be a splendid idea for Modern Packaging to arrange a series of articles which would describe the various packaging machines that are available for certain purposes in a horizontal comparison. For instance, compare all the tight wrapping machines as being built today by different manufacturers, the cartoning machines, various filling and weighing machines, etc.

This would be a great help to people purchasing and selecting the proper type of machinery and equipment when confronted with a certain problem.

A great deal more in detail could be said about such matters, but presume that you will understand what I have in mind.

G. J. PATITZ Consulting and Supervising Engineer Standard Brands, Inc.

The Institute of Package Research has for many months been at work compiling Machinery Data sheets, the first of which will appear in an early issue of Modern Packaging. It would welcome, as it does Mr. Patitz' letter, other suggestions and comments on this project.—ED.

DESIGNER OKEYS SURVEYS

Sirs.

"Protecting Package Design" by Wentworth Weeks is one of the best presentations of the subject I have read. Let me also commend you on your treatment of another subject in the same issue "Does Redesign Pay?" I like articles of this sort because they enable me to keep upto-date in a given field with some degree of authority. There are so many things that an industrial designer must read that he is quick to appreciate anyone who properly collects data, eliminates unessentials and organizes material for quick, easy digestion or reference.

GEORGE SWITZER

Let Reader Switzer rest easy. Seven more surveys are now in process of preparation.—ED.

MORE SURVEY PLAUDITS

Sirs

I read your article on "Sampling Procedure" with intense interest. In my opinion, it is one of the best reports that has come to my attention. I thought so highly of it that I sent it to the sales manager of one of the pharmaceutical companies licensed by the Foundation.

I wish that you would send me two additional copies, one for my files and one for another pharmaceutical company.

HOBART H. KLETZIEN Wisconsin Alumni Research Foundation

Sirs:

Thank you very much for the proof of the article "Does Redesign Pay?" This is an interesting article and one which I think is timely.

I would appreciate your having two copies of the general issue sent and billed to this office. This information is so very pertinent that these copies will be used to good advantage.

You may be interested in knowing that your article on hardware display material, which appeared in your September publication, was of such interest that we were in a position to prevail upon one account to take advantage of this interest to increase their activity in the hardware business.

EDWARD A. MARTIN
The Forbes Lithograph Mfg. Co.

Sire .

In reply to your letter of January 21 relative to the article on the new Campana plant at Batavia, Ill., there is no doubt that material of this kind is of great interest to production men whose jobs have to do with packaging equipment installations. Also the addition of as many related factors as possible is, naturally, of added interest. The photography of this article was particularly good since it presented the equipment in a very clear cut fashion. I should say more power to this type of plant photography.

DR. M. A. DITTMAR Lehn & Fink Products Corp.

AFTER WORK, THE DELUGE

The article by Professor Paul Work, "A \$600,000,000 Laggard," which appeared in the December issue of Modern Packaging, has brought forth literally hundreds of comments from vegetable growers and marketers and State, Federal and Collegiate agricultural authorities. A few are reprinted below, as space permits. To all other correspondents—our thanks.—ED.

Sire

Secretary Wallace has asked me to acknowledge receipt of the copy of Modern Packaging.

We have read with interest Professor Paul Work's article on packaging of vegetables. There is no question about the benefit of vegetable packaging which limits deterioration of a commodity, provided the cost of such packaging is offset by the saving due to reduction of waste. Doubtless there is a market also for that type of packaging which is designed to catch the consumer eye and bring a higher price. The question here is how much of the higher price is returned to the producer. For the vast majority of consumers it is still true that economy of purchase is their chief need, particularly in the case of fresh vegetables which do not appear in their diets to the extent that good nutrition would indicate to be necessary.

J. D. LECRON
Assistant to the Secretary
U. S. Dept. of Agriculture

Added costs of packaging have been, in many industries, more than balanced by economies in production and savings in avoidance of deterioration. The opportunities for such economies and savings are so obvious in vegetable packaging that Secretary Wallace need have little fear of price advances when packaging is sensibly undertaken. May we refer him for some examples—pro and con—to the letters below.

Sirs:

This will acknowledge the receipt of the December issue of your Modern Packaging. Permit me to compliment you on an unusually fine business magazine. I have immediately read the article on vegetable packing by Professor Work.

Professor Work, unquestionably, is well-grounded in the packaging and general handling of perishable products, which I know must have taken him a very considerable time, and probably means he has made a study of the perishable industry over quite a period of years. In fact, his article impresses me as having been written, not by a college professor but by a member of the industry who has learned to write and set down his findings as would a college professor.

From a life time of experience, practically exclusively in the perishable industry, in all branches of the industry from that of production and experience from the East coast to the West coast, including selling and distributing on Eastern markets, I cannot find anything to add to Professor Work's article. However, I will try to expand a little on a few points which may throw additional light on his findings, but I will

Vew Beauty.





OLD WINES

A new gallon jug and ½-gallon bottle by Hazel-Atlas, available in crystal or (in sufficiently large quantities) in amber glass. Write for free sample.



HAZEL-ATLAS GLASS CO.

not try to set them down in any particular order, but simply as they occur, from notes made while reading the article.

We have made quite a study of breakage during the process of unloading, or as Professor Work terms it, "unpacking," and find that there is a serious waste, but we also find that the most serious waste by far occurs in the unpacking or unloading in New York City. We have discovered that the chief reason for this is the mishandling by the stevedores who generally handle perishable products as they would so much lumber. In practically every other market, the breakage in unloading is very slight. Therefore, the serious waste which occurs in New York could be eliminated if you could educate labor to work intelligently.

Costs in packaging are a big factor in our industry. The cost of the commodity is practically insignificant in comparison. For example, our average cost to produce lettuce is about 35c per crate; the cost of harvesting, packaging and loading exceeds 90c per crate, and freight, refrigeration and selling costs usually exceed \$1.75 per crate.

We are continuously trying to find ways and means of reducing our costs and at the same time maintain a high grade and high quality pack. We have found, however, that every improvement we have made in our grading and packing, or appearance of the package, has invariably increased the cost materially. Printed paper, colored cleats on the lid, printing on the lids or crates, etc., all add to the cost.

E. M. SEIFERT Holme and Seifert

Dear Sirs:

Personally I think packaging would progress much faster if we had more coöperation from the railroads. You can see how refrigeration changed marketing practices and you would also see just as big a change in packaging if the railroads would give a little cooperation to protect packaging in transit.

We now have potatoes shipped in peck paper bags but they are not yet wholly satisfactory during some months of the year because the cars are not fitted properly to protect them against sweating and rubbing which scuffs holes through the bags. Would be glad to discuss this with you some time when I am in New York.

GEORGE A. STUART
Taggart Brothers Co., Inc.

Dear Sirs:

The point that Dr. Work makes that vegetable growers in areas close to market are the most backward in the package improvement movement is very true. That is typical of the large majority of the growers here in this state. The need for package improvement by this class is not as great as for those in areas more distant from the market.

BENJAMIN P. STORRS
State of Connecticut Dept. of Agriculture

Sirs

We have tried for a number of years to keep abreast of the times but confess that it is rather difficult. Members of the Department have always manifested an interest in the contents of Professor Work's articles and have done some work along that particular line. For example, some twelve or fifteen years ago all Irish potatoes were shipped strictly in a slat barrel. We prevailed upon the growers and shippers for some two or three years to get them to change to a stave barrel and they did. Some four or five years ago we saw that the trend in Irish potatoes was toward a smaller package and particularly toward bags. We brought this to their attention and last year quite a large percentage of the total crop was shipped in 100-lb. bags, whereas only a few years ago, all of the potatoes were shipped in barrels.

Just one other illustration. In 1935 we became convinced that the 32-qt. crate which we were using for strawberries was a larger package than the trade wanted. A series of meetings were held in the strawberry-producing shipping areas and the growers and shippers were told that it would be to their advantage to use a 24-qt. crate. Last year fully 98 per cent of the strawberries shipped from this state were shipped in 24-qt. crates, and beginning this year virtually the entire crop will be shipped in that package.

RANDAL B. ETHERIDGE North Carolina Dept. of Agriculture

ONE NEVER KNOWS, DOES ONE?

(Continued from page 35)

itself readily to that form of labeling which utilizes the lower half of the container only and permits an uninterrupted view of fully half the bottle's contents in the section above the package label. In the case of grape juice and wines, where the consumer sometimes likes to see the "bead" the product assumes when shaken, this form of labeling offers marked advantages.

Certain users likewise found the short neck particularly adapted to the graceful utilization of secondary seals such as the cellulose cap. The sharp shoulder of the container, where the body of the bottle merges into the short neck at a very rapid pace, was likewise found by some users to offer unusual opportunities for the achievement of sound display value through the use of secondary labels placed upon this shoulder. Such labels are particularly visible on counters and in below-eye-level display in store windows.

Curiously, even the catsup industry—marketing a product completely different in its nature, use and consistency, from beer—found that the new container made an ideal table package, being easy to pour from and not easily upset. So, too, with table syrups and apple juice, both products of a much "thicker" nature than beer, and both products which are consumed only over a comparatively long period of time.

Naturally, different finishes were developed to meet specialized requirements of different industries and the bottles are today found adapted to several forms of closures and with several shoulder and neck finishes, retaining, however, the essential characteristics as originally developed for beer, namely, shortness, stability and light weight.

While we have selected this particular instance because it so aptly proves the point, the reader need not conclude that similar opportunities for the profitable utilization of the experience of other industries exists solely in the case of the "Stubby" bottle, or even of glass containers as a group. The clever packager will more than ever, today, watch the new developments in packaging other and non-competitive products when he seeks ideas for the solution of his own problems. For frequently enough, such problems, though on the surface they may appear to be unique within each manufacturer's own field, are very often—more often, in fact, than not—closely similar to the problems of manufacturers serving utterly different human needs.

A significant point about the "Stubby" experience, which differentiates them from many similar opportunities that have existed in the past, lies in the fact that here, for once, both the package suppliers and the potential package users became aware of the possibilities of utilizing the new design to solve the problems of a number of industries at a very early date.

THERE'S ONE BORN EVERY MINUTE

. . . P. T. Barnum

Barnum might have been right, but we do not believe you can fool the public all the time. Sulglass, Baglass, and other so-called Glassine papers are all right for certain purposes,

But

when you want and expect protection for such commodities as candy, cheese, popcorn, potato chips, doughnuts, cakes, cookies, and so forth, please do not expect to get a substitute for genuine greaseproof Glassine to do the work for you. It costs more money to make the real article and you can't expect to get a quart for the cost of a pint—it doesn't matter whether it's beer or milk!

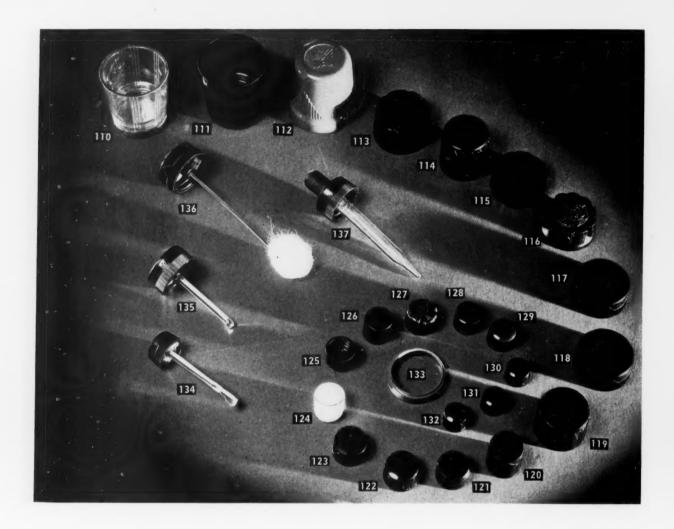
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PLASTIC CLOSURES FROM STOCK MOLDS

SHEET FIFTEEN

These closures and applicators are available from stock molds. Samples will be sent to executives who request them on business stationery

- 110. Jigger cap molded of transparent phenolics; 1-3/8 in. inside diameter, 1-5/8 in. high.
- 111. Jigger cap threaded at top to seal bottle; 1-7/16 in. inside diameter and 1-3/4 in. high.
- 112. Jigger cap threaded at bottom; 1-7/16 in. inside diameter and 1-3/4 in. high. Decorated top has a sand-blasted emblem.
- 113. Trident molded cap with machined finish; 1-1/16 in. diameter and 3/4 in. high.
- 114. Threaded cap; 7/8 in. diameter and 1 in. high.
- 115. Threaded cap with tooth edge; 1 in. diameter and 1/2 in high
- **116.** Tamper proof threaded cap with Cinzano emblem. The ring No. 133 fits tightly in the teeth of the cap. 1-1/16 in. diameter and 9/16 in. high.
- 117. Threaded cap with machined design; 1 in. diameter and 1/2 in. high.
- 118. Same as 117, with 1/8 in. opening at top.

- **119.** Threaded cap with decorated sides; 7/8 in. diameter and 3/4 in. high.
- 120. Threaded cap; 9/16 in. diameter and 5/8 in. high.
- 121. Threaded cap; 7/16 in. diameter and 3/8 in. high.
- 122. Threaded cap; 9/16 in. diameter and 3/8 in. high.
- 123. Threaded cap with internal attachment 1/8 in. diameter for applicator; 9/16 in. diameter and 3/8 in. high.
- 124. Threaded cap with internal point seal; 9/16 in. diameter and 9/16 in. high.
- **125.** Threaded cap with internal point seal; 1/2 in. diameter and 3/8 in. high.
- **126.** Threaded cap; 1/2 in. diameter and 1/2 in. high.
- 127. Threaded cap with sextant design; 9/16 in. diameter and 7/16 in. high.
- **128.** Threaded cap with internal point seal, 1/2 in diameter and 3/8 in high.
- 129. Same in brown.
- 130. Threaded cap with internal point seal; 3/8 in. diameter and 5/16 in. high.
- 131, 132. Same as 130 without seal.
- 134. Brush applicator cap; 9/16 in. diameter and 3/8 in. high.
- 135. Glass applicator cap; 7/8 in. diameter and 1/2 in. high.
- 136. Shoe polish applicator cap; 5/16 in. diameter and 1/2 in. high.
- **137.** Medicinal dropper cap; 3/4 in. diameter at bottom, 7/16 in. opening at top, and 7/16 in. high.



PEG-LEG trousers and button shoes went out long ago. So did old-fashioned packages. Today the wise executive dresses up his package to fit his product, his market and the times. It may need one color or a dozen . . . but smart merchandisers go ahead and do it. Heekin lithographed metal containers give you true color reproduction. Our corps of expert artists and designers will work with you in improving the old package or creating a new one. Heekin grinds and blends its own colors—giving their full value to every package. That is what you want.

THE HEEKIN CAN CO., CINCINNATI, OHIO

HEEKIN CANS WITH HARMONIZED COLORS

PACKAGING PROBLEMS OF THE FROZEN FOOD INDUSTRIES

(Continued from page 32)

but for the bulk and belt freezing processes, they are entirely satisfactory from a handling standpoint.

Paraffined paperboard is not a good conductor of heat; but since the board commonly used is rather thin, freezing is not greatly retarded.

Containers which will nest possess an advantage over the cylindrical type since their use permits a great saving of storage space for the unfilled containers.

In general, the paperboard cups, tubs and cylinders have one advantage not possessed by the rectangular cartons—they are made up ready for use and need no assembling or wrapping in the food freezing plant.

Bags: Vegetable parchment (specially plasticized and lacquer coated), specially coated sulphite paper, and moisture-proof cellophane bags are being used principally for certain varieties of frozen vegetables. Frozen vegetables packaged in bags should be packed in well constructed shipping containers or else the product is likely to be spilled and damaged during transportation and handling.

Rectangular Packages: The use of a rectan-

- **10.** Colorfully printed paraffined cups are being widely used for fruits and vegetables. Photo courtesy Mono Service Co.
- 11. Designs used on rectangular frosted food containers vary. Most manufacturers use a single standard design with imprinted product names. Photo courtesy Container Corp. of America.





gular paperboard carton lined with moisture-proof sheet cellulose or cellulose acetate and wrapped with a transparent wrapper has several advantages which are not likely to be apparent to one who has not had experience in the packaging, storage and marketing of frozen foods. In general, most types of foods commonly frozen can be fitted easily into a rectangular carton. The filled cartons can be fitted into a corrugated fibreboard shipping case without leaving any space. Thus a greater weight of product can be placed in a given shipping container. This has several advantages: (1) Less storage space is required per unit weight of product. (2) Other conditions being the same, on exposure in a warm room, less heat will be absorbed per pound of product, since the rate of heat transfer is directly proportional to the surface area, and more heat will be required to raise the contents of the container to the thawing point. (3) Because of the smaller surface (per unit of packaged material), less moisture will be lost through the walls of the shipping container and consequently less desiccation will occur (other conditions being the same).

The use of a transparent moisture-vapor-proof and waterproof liner is necessary in many types of rectangular cartons and advantageous in others. If the carton is of the one piece Peters type, it is neither air- nor watertight and therefore a liner is absolutely necessary. On the other hand, if the paperboard is heavily paraffined or water- and moisture-vapor-proofed in some other manner, and the carton constructed in such a way that the bottom of the carton holds water, a liner is not absolutely necessary; however, its use aids in reducing desiccation. If a liner is not utilized, a sheet of moisture-proof transparent paper or some type of waxed paper or similar material should be placed over the top of the food in order to retard desiccation on the surface of the product. If this is not done, there will be a considerable loss of moisture in the headspace because of fluctuation in the storage temperature. Where transparency is not required, self-sealing waxed paper or similar products are satisfactory.

This desiccation of the surface of a product packaged with considerable headspace can be observed after a few months' storage. Although freezerburn will be noted on the surface of the food, much snow will be found in the headspace. Some snow is formed from moisture in the headspace each time the product is cooled, i.e, with each drop in temperature during the storage period.

Wrapping a rectangular package in either a transparent paper such as a transparent waxed sulphite or a heat sealing cellophane or cellulose acetate sheet retards desiccation and makes the package substantially air-tight. It also enhances the appearance of the package. Peters type cartons such as are used for a large portion of Birdseye Frosted Foods must be wrapped, as otherwise the contents of the package may spill out during handling.

In order to freeze liquid and semi-liquid foods in a Birdseye Multiplate Froster, they must be packaged in rectangular cartons. Usually, this is accomplished by sealing the food in a waterproof heat sealing cellophane or vegetable parchment bag which just fits a substan-



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FOR folding carton materials—boxboards of many uses—get acquainted with Ridgelo specialties.

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There are coatings planned for the popular gloss inks so that they shine with a lustre to bring prominence to any package. And there is a coating for lacquer and varnishes that makes their practical pro-

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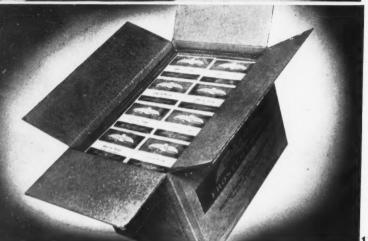
Perhaps you want the smoothest, richest of printing surfaces in folding boxboards. Then ask for Ridgelo clay coated—the premium quality boxboard that costs no more.

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12. Cylindrical containers are frequently lined with a specially formed and folded cellophane sheet, thus insuring full protection against desicca-Photo courtesy Sealright Co., Inc.

13. As with sales packages, so most frozen food shipping containers should be adapted to special conditions. Corrugated board should provide good insulation. Asphalt "barrier board" is frequently used to prevent the passage of moisture-vapor. Photo courtesy Robert Gair Co., Inc.

tially water-tight carton. A package of this sort is much more difficult to fill than a paraffined paperboard cup, but it possesses an advantage as a container for sliced peaches, which brown quickly in contact with air, because the bags may be filled so completely that contact with air is practically eliminated.

Special Problems and Products

The packaging of dressed poultry offers many difficulties and has not as yet been solved. The shape of the product makes it difficult to obtain perfect contact between the poultry and the wrapper. Most slow frozen poultry is not individually wrapped but is packed in a wooden shipping case lined with vegetable parchment paper. Twelve birds are usually put in each case. A better method used by one packer of quick frozen poultry involves the wrapping of the bird in moisture-proof cellophane and then slipping it into a snugly fitting stockinet bag. Another packer wraps the birds individually in vegetable parchment and then packs several in a waxed paperboard carton. Even with the best package devised, some desiccation occurs and the frozen poultry will show freezerburn after long storage.*

Oysters become discolored when frozen and stored in certain types of paperboard containers. Research will be necessary in order to determine the exact cause of the discoloration and to show how to prevent it.

Corn-on-the-cob is difficult to package compactly so as to avoid desiccation during storage. It is bulky, therefore if it is to be sold at a moderate price, inexpensive wrapping materials must be used. However, many persons prefer to see the corn before purchase. If display is required, the more expensive transparent wrapping materials, such as moisture-proof sheet cellulose and cellulose acetate are required. A specially plasticized and laminated glassine (heat-seal, lacquer coated) is also widely used for corn-on-the-cob.

Shipping Containers

No consideration of the packaging problems of the frozen food industry would be complete without at least a brief discussion of shipping containers. Properly lined, corrugated fibreboard shipping containers possess many advantages. They are light and strong and are sufficiently good insulators to permit handling in warm weather without danger of thawing, provided at least thirty pounds of compactly packaged frozen food is put in each container and they are not kept out of the cold storage for longer than twelve hours.

If the shipping containers are constructed of corrugated fibreboard with an asphalt lamination (the so-called "barrier board"), they resist dampness much better than those made of ordinary fibreboard. This asphalt film also aids in preventing the passage of moisture vapor through the container and so retards desiccation of the product. Two or three liners (on all sides) should be sufficient unless special protection is desired. The edges should be taped with special waterproof tape.

The Future

The trend of the times indicates clearly that a larger and larger proportion of the annual production of frozen foods is being packaged in small containers. Further, the annual production of frozen foods, especially vegetables and fruits, is increasing rapidly. The number of retail stores offering frozen foods (not thawed foods) is reported to be about 5,000. As this number grows, national advertising of frosted food brands should be profitable. This will mean a further increase in the demand for these foods. In ten years they will be sold in every hamlet in the country. The expansion of this industry will increase greatly the demand for transparent moisture-proof sheets, moisture-proof papers and boards.

Many packaging problems remain unsolved. The design of a perfect package for frozen foods is a challenge to the package engineer.

^{*} Excerpt from article by Wm. J. Finnegan, consulting engineer, in the January 1938 issue of *Ice & Refrigeration*. "Numerous authorities including Tressler have pointed out that drying out, freezerburn and the lack of uniform desiccation occurring in frozen poultry could be entirely eliminated if the air in contact with the product was kept saturated. This not only coincides with correct principle but is obvious since moisture cannot evaporate from the product if the air cannot hold moisture."
"Therefore the ideal condition of the re-circulated air used for freezing would be saturated and at the lowest economical and practical temperature. Of course, it is impossible to transfer heat under these conditions and at the same time maintain a saturated air. However, the definiteness of this indicates that the higher percentages of relative humidity in the re-circulated air, more closely approach the ideal condition necessary to eliminate excessive moisture evaporation from the product during freezing or storage."



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MODERN DISPLAY

DAZEY DEMONSTRATES AS IT DISPLAYS

MANUFACTURERS OF HOUSEHOLD SPECIALTIES have found, through long experience, that their products present display problems of an unusual nature which are perhaps more difficult of solution than those presented by most other industries. Thus the recent successful experiences of the Dazey Churn and Manufacturing Co., with both window and counter displays, are particularly noteworthy because of the manner in which they have solved a whole series of questions arising from the nature of the product and its requirements for display and demonstration.

The Dazey company manufactures a line of kitchen aids which includes, in addition to various varieties of can openers, a knife-sharpening device, a jar opener and a fruit juice extractor. Each of these items is of substantial construction and commands a price no doubt commensurate with the quality built into it, but relatively high in comparison with certain other devices intended to accomplish similar purposes in the home.

A major problem for the Dazey dealer has, therefore, been to present and to demonstrate these devices in a way that will clearly and quickly show their greater sturdiness, convenience and ease of operation.

Dazey devices differ, once again, from most other can opening and kitchen convenience units in the manner in which they are attached to the wall or to kitchen fixtures when used. Through the use of a small bracket receptacle, the company has made it possible for the housewife to attach any of the devices firmly to a wall when it is required for use, and to remove the device when this requirement has ceased and thus to avoid any obstructions permanently projecting into her kitchen work area.

The Dazey problem resolved itself to one of easily and





speedily explaining the advantages and convenience of all the Dazey units, while, at the same time, demonstrating the unique Dazey feature embodied in the small wall bracket construction.

For window display, the solution was found in the development of a single unit, featuring in its upper portion the DeLuxe can opener and, in its lower section, emphasizing the manner in which four of the units can be used in conjunction with a single small wall bracket. This unit measures 32 in. by 36 in. and is intended either to dominate a large window display or, when limited space is available, to serve as a complete display in itself. Four smaller units were furnished whenever space was available for use in conjunction with this large unit, each featuring one of the Dazey devices and each providing space for its display, both within the package and as attached to a wall bracket ready for use. In addition, a set of six colorful die-cut arrows, each bearing a different sales message, were provided for use in conjunction with Dazey cartons, thus making it possible for the dealer to fill out a window or counter display with a number of Dazey packages "pepped-up" by these color spots.

The company reports that the window and counter display has been receiving unusual response from dealers, both because of the dramatic manner in which it displays actual merchandise and because of the way the various units lend themselves to assembly to fit any size or shape of window or counter.

One large downtown St. Louis dealer, who had refused even seeing the display, had the units installed as soon as they were received and retained them in his window for over six months. Another store, located in Canton, Ohio, reported two calls for can openers within the first hour after installation.

In spite of the large area which this group of units is capable of covering, they have been so carefully planned as to permit their shipment in a single flat shipping carton, measuring 35 in. by 21 in., which is delivered either by express or by jobber factory salesmen in person.

For more permanent display and to permit salesmen an opportunity of demonstrating the devices in actual use, the company delegated designers Barnes and Reinecke to develop a metal counter display unit. Their design called for a heavy gauge metal construction, finished in two tones of glossy blue enamel to provide a suitable contrast with the bright silver color of the kitchen aids themselves. The unit consists of a metal base from which arises a single pillar so equipped as to hold three of the units on each of its sides in display position. For demonstration purposes, the salesman removes any desired one of these units and places it in the seventh bracket, provided for this purpose on the front face of the pillar, thus demonstrating instantaneously the convenience of the wall bracket feature. The pillar and stand are rigid enough to actually bear any of the units when it is placed in its front-pillar bracket. Behind the pillar and having a special width to provide adequate background for the units on either side of the pillar, there arises a streamline metal backdrop suitably imprinted with a description of the products and suggesting to the shopper that she request a demonstration.

Here again, the successful accomplishment of the display may best be judged by dealer comments. An Oakland, Calif., department store reports that "since receiving and using the new modernistic display stand, we find we are selling more complete sets of Dazey kitchen helps than formerly." Other stores praise the convenience features in so far as they permit clerks to close a sale by the demonstration method in far shorter time than was formerly the case.

Finally—and this is the ultimate measure, of course, of any promotional program success—the company reports that since the introduction of the new display program, sales of all devices have increased materially from month to month and over the same months of last year.

Credit to the Wolff Printing Co., manufacturers of the window display units. Metal displays manufactured by the Dazey Churn and Manufacturing Co.

SANITARY PRODUCTS CANDIDLY DISPLAYED

WITH THE PROGRESS OF MEDICAL RESEARCH and the increasing mass market for feminine hygiene products, Zonite Products Corp. has been impelled to sponsor a carefully planned promotion for its two entries in this field, Zonite and Zonitors. The plan is built around a uniquely constructed display designed to provide the dealer with the basis for the establishment of a complete "feminine hygiene department."

The designers have shown an awareness of the fact that nearly every woman who enters a drug store, interested in certain articles which, because of their nature, she is reluctant to ask for or discuss, will be more likely to purchase these if she sees them on open display. It was felt, too, that whereas there would be little to induce the druggist to provide extensive open display for any single manufacturer's feminine hygiene products, there would be much reason for the druggist to feature any display which showed a large number of these items, particularly those which, irrespective of their manufacturing source, represented his best actual or potential sellers. In this respect, the company has merely held concrete the theme which the drug trade journals have harped upon for some time past. They have brought these items out from the back shelves into the light where consumers can see them, and in doing so have made certain that Zonite and Zonitors are part of any such display.

This has been achieved without any reliance upon the goodwill of the dealer. Both Zonite packages have been

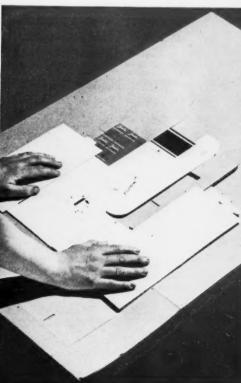
reproduced as an integral part of the display and thus achieve preferred position in relation to the other items which are to be shown. The lower platforms of the display have printed upon them outlines indicating where each of the series of twelve other items are to be placed and it is to be expected that dealers will, for the most part, follow these indications. However, in the case of the Zonite products, there is no necessity to rely upon the dealers in this respect.

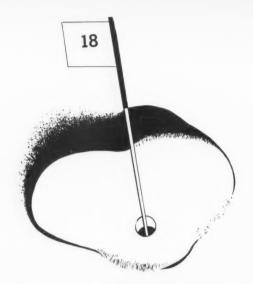
The construction of the display is rather unusual. Although it is shipped flat as a single unit, it opens easily in a many-platformed support for the packages. The curved front permits of visibility from either direction as one approaches the counter. The focal point of the unit is a smiling young lady with the attention-demanding words, "For women—feminine hygiene products for comfort, health, convenience." Below this headline the Zonite packages occupy the center and most prominent position. Lithographed in pastel colors, the display relies upon the extensive use of white background to emphasize the sanitary nature of the products it is intended to be used with.

Introduced a few weeks ago in a number of test stores, the display is reported to be receiving an unusually favorable dealer reception. Dealers were particularly vocal in their favorable comments upon the manner in which the display unselfishly created a complete department and provided space for other products.

Left: The display as it appears on the dealer's counter. The unit offers a unique method of merchandising Zonite products by tying them in with other items fitting into the broad classification of feminine hygiene, and thus placing the dealer's interests above those of any single supplier. Right: Rear view of the display showing the simple manner in which the unit is set up. Instructions are plainly printed and a drawing provided to show finished appearance.







A NEW APPROACH DRIVES CLUB SALES UPWARD

THE DISPLAY AND PACKAGING PROBLEMS OF the manufacturer of sporting goods equipment have always proved troublesome because of the unusual size and shape of the items and because of the fact that their nature required examination by the potential customer, handling and, hence, open display.

Some manufacturers have entirely avoided the problem by avoiding both packages and displays. They have restricted packaging to shipping containers of one form or another and to various types of protective paper wraps intended to be removed prior to display in the store. Others have seen the solution to the problem in the development of solid fibre or corrugated board containers. This has been particularly true of the manufacturers of golf clubs, whose products are usually sold in sets.

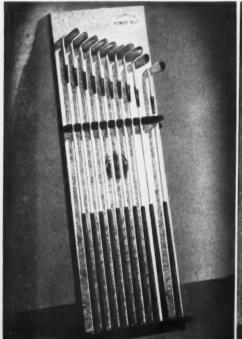
The Hillerich & Bradsby Co. has recently developed a series of unique displays and what—for want of a better term—might be called display-packages. This firm's products, unlike those of many other manufacturers, are sold only through golf professionals at country clubs and this fact has, of course, vastly influenced the entire line of the company's thought. Thus it was logical that any 'package' or display developed for Power-Bilt golf clubs should be distinctly different from packages used by other manufacturers and should, therefore, establish the line in the consumer's eye as something to be found only through his Club professional.

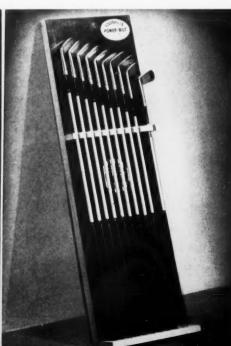
Since paperboard boxes have been widely used in almost identical design, except color, by a number of manufacturers selling through retail outlets, this firm sought a material other than cardboard as the starting point for its "package" and display development. It felt also that golf clubs packed in paper containers were frequently so packed that it was difficult for the prospective buyer to remove the clubs from the box. Retainers and box sides were believed by the company to cut down display visibility and hence here again the new design was required to be one that would overcome these objections. Finally it was felt that whatever the materials to be used, they must be of such a nature as to permit of long display, for many months if need be, in the selling arena, without deterioration or soilage.

One other consideration which induced the company to eschew the paper container was the fact that all re-orders required the use of additional containers of fairly expensive nature. A method was sought whereby a single display-package could be sent with the first set of clubs and additional orders shipped without sales packages, being merely placed into vacant portions of the original display-package as such vacancies occurred.

The solution to the problem was found in a series of plywood panels or, as the company calls them, "panel packages," provided with slots and grooves to receive the various clubs. These panels, (Continued on page 78)

The single unit "display packages" are shown below. On the opposite page is seen the three-part hinged display assembled in two forms and dismounted for use as separate units.







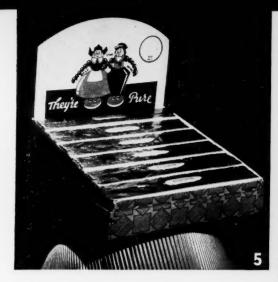


display gallery





- 1. The Bayer Co. is distributing a new counter display, lithographed on cardboard to simulate an artistic pyramid of various sizes of Bayer packages. It is a three-plane, three-dimensional unit which is erected quickly and easily, thereby saving the dealer's time and effort ordinarily required to arrange a pyramid display of actual merchandise. Designed and lithographed by the Polygraphic Co. of America, Inc.
- 2. An effective sales-maker is the Eaton Paper Corp. counter dispenser of writing papers, cellophane wrapped, in sample quantities. The unit carries the imperative slogan "Write that letter tonight," calculated to stir the transient consumer into buying action. Two rows of Highland papers, in assorted colors, are lined up in staggered diagonal lines so as to focus attention on the trade mark and the message.
- 3. A new display carton for dispensing poster stamps of the Grand Coulee Dam, being constructed by the Federal Government in the state of Washington, makes these attractively lithographed stamps easily available to the public. The device holds 100 glassine envelopes each containing 40 stamps. Lithographed in a medium blue, the carton serves as a shipping container as well as a display. Both stamps and display are produced by the Farwest Lithograph & Printing Co.
- 4. Fink Roselieve Co. presents its film developer and accessories compactly packaged in a display container which not only serves as a display piece but also as a carry-home package. The carton is executed in a bright red and gray color scheme, designed to emphasize the beauty of the black streamlined developer. Carton manufactured by Robert Gair Co., Inc.



- **5.** On the theory that an inclined counter display sells more goods than a similar display set level on the counter, the Holland American Wafer Co. has adopted a corrugated shipping box which is quickly converted into an inclined display unit by folding back one of the ends of the box and inserting the bottom into the lid. An illustrated price card at the back of the unit completes the display. Designed by The Hinde & Dauch Paper Co.
- 6. A new lure for fishermen is the W. J. Jamison Co. display package for its Shannon fish baits. The new package, printed in green, yellow and black on clay-coated folding carton board, is made in three different sizes to accommodate seventeen different baits, being ingeniously slotted to hold them firmly in place. End panels contain a blank form in which can be imprinted specific information as to style, pattern, hook size and stock number of item. Cartons by American Coating Mills, Inc.
- 7. Grady-Travers Co. Sea-Crest fish lines, in dozen lots and wrapped individually in transparent cellulose, are appropriately presented in a carrier counter display unit styled in sea-green and orange and utilizing a nautical design. Box designed and manufactured by Eastern States Carton Division of Robert Gair Co., Inc.
- 8. The Miles Laboratories, Inc. smartly effect vital tie-ins between this attractive and dominant window display for Alka-Seltzer and other forms of advertising. The smiling young lady on the center panel appears also on the display baskets designed for use both in windows and on store counters. The smaller cards carry cartoon illustrations reminiscent of the intensive car card advertising of Alka-Seltzer. Created and lithographed in full color by The Forbes Lithograph Co.







SWERVING FROM SIMPLICITY

(Continued from page 36)

apart and independent of the welfare of the whole. The cycles, therefore, are shorter and revolve much more rapidly.

There seems to be a tendency among dress designers today to produce the spectacular, regardless of durability or even appropriateness. Have we not seen recently dress clothes, evening coats, etc., reminiscent of the Elizabethan and Crinoline times? They command attention, but are certainly transitory. One is reminded of the end of the Renaissance when over-flamboyant ideas of originality had been exhausted and men had to resort to trousers—or whatever they were then called—with legs of different colors. In no other way could originality be achieved.

Certainly there is a trend toward a greater richness in design, straight lines are largely out and curves have their inning again. Style always runs to extremes—the boyish figure became unhealthy emaciation. When the pendulum again swings the other way to the full measure of the arc, we may again worship Lillian Russell, plumes, flowers and all.

It would seem that we are just emerging from a period of simplicity carried to the extreme of uniformity While there might be variation in color, there was little in design. This is as true in packaging as in clothes. The package design was stripped down to the minimum amount of lettering of the simplest block form, the fewest number of colors, usually of the utmost intensity and confined largely to the primary colors, and design became geometric in many cases. The one object sought was dominance. Seldom was there any relation of color, design or lettering to the product, and the sales message was little more than the name of the goods. Without opinion of the artistic achievement of this trend, but bearing in mind that carton designing is style and not art, it would seem that the ultimate in simplicity has been reached and that there is impending a revival of a little more ornate, but perhaps more effective, designingmore effective, since such ornament as there will be will come from the product, its atmosphere or use, as motivation. To what extent this will go is difficult to estimate. It may go as far as Victorianism, or, more happily, it may stop midway in a happy compromise between stark simplicity and over-ornamentation. There are indications of such changes in packages, but as yet the buyer is not content to pioneer. It is not usual for the packaging industry to lead in a change of trend in design. Package design usually lags somewhat behind certain more advanced fields.

Style is not a matter of academic art standards. The design of packages, like clothes, is influenced by style, and the current manner of living determines style and we can have no set standards.

NEW APPROACH DRIVES CLUB SALES UPWARD

(Continued from page 74)

with the clubs in place, shipped with the original order, would harmonize, in their beautiful wood effects, with the fixtures ordinarily found in the professional's shop. In this sense they would serve for long periods as admirable displays which would show the clubs to the greatest advantage and with fullest possible visibility of all parts of every club. They would, at the same time, serve to identify the clubs, since each panel is equipped with a decalcomania label carrying the Power-Bilt brand. Such problems as deterioration of the display, sagging, soilage, etc., naturally disappeared with the adoption of polished plywood.

The company carried this development a step further when it devised a mass merchandise display consisting of three separate units connected with loose-pin hinges to form a flexible, permanent display fixture. The central panel of this fixture is arranged to hold, on open display, one of the Hillerich & Bradsby golf bags. The two quarter-round side panels hold irons and woods. Since these units hold the clubs in upright position, special metal clips are provided in each groove to prevent the club from falling out of the display.

The fixture lends itself to utilization in a number of different ways. Since the side panels are hinged to the central panel, the assembled fixture may be placed either against a single wall or in a corner between two walls or two store fixtures. The unit may likewise be placed in its assembled position around three sides of a pillar, thus making possible the utilization of an ideal display position usually permitted to go to waste. Where conditions demand, however, the pins may be removed from the hinges and the various units of this display used as individual displays. The side panels fit admirably into store corners or may be placed next to each other to form a semi-circular display unit. The flat central panel may then be used in much the same manner as the displaypackages, being set against any available wall space or stood erect in any desired portion of the room.

The company reports these units as having a marked effect on sales. Particularly happy has been their experience in reducing returns of merchandise. Golf professionals have been much in the habit of returning merchandise to the manufacturers who supply them, even after an entire season of display, and losses of this nature have run to very high figures. The provision of "packages" and displays which assume a position as actual fixtures within the professional store has served to markedly reduce such tendencies on the part of the professional.

Credit to Robert W. Gwin of the Hillerich and Bradsby Co. for design and Castlewood Manufacturing Co. for the fabrication of the various units shown.

reater Circulation ADVERTISE at THE POINT OF SALE FOR



register an impression and create an urge to buy.

WINDOW displays and point-of-sale advertising do just that, and do it at the moment when the prospect is able to satisfy the urge right at that spot.

THESE displays, for window and inside store advertising, are Forbes creations, are lithographed in full color, and are ADVERTISEMENTS that SELL.



Consult FORBES FOR CREATIVE COÖPERATION

CREATIVE LITHOGRAPHERS SEVENTY-SIX YEARS THE SHOP THE SECOND



ON THE COUNTER

BES LITHOGRAPH CO.
PHILADELPHIA: CHICAGO

DETROIT YORK



ONE TRIAL DISPLAY BRINGS ON A SERIES

A LITTLE OVER A YEAR AGO, Hiram Walker and Sons found themselves ready to market their Ten High whiskey on an extensive scale. They felt that they had a good product although one that was far from being the leading seller in any portion of the country. Truth to tell, Ten High started as practically an unknown brand. As a major part of the promotion of this brand, the company decided to utilize a display that would accomplish several desired purposes in marketing the product over its introductory period.

It was demanded of the display, first, that it accomplish the major task of introducing the package itself



and familiarizing it to the consumer—with its shape, color, scheme, name and label. Secondly, that it pictorialize the idea in the company's slogan "No Rough Edges." In conjunction with their display lithographing art department, the details of the idea were worked out and production of art work started. A two-plane display was decided upon to achieve a three-dimensional effect. Photography in full color reproduction was utilized to lend life to both the figure illustration and the picture of the package. The package itself was blown up to very substantial proportions.

In seeking an illustrative figure, the designers decided to utilize as distinguished looking a model as could be secured, preferably an elderly gentleman whose very manner would speak the type of polished elegance implied in the product's slogan. Dressed in top hat, white tie and cane, with rimless pince nez glasses, this completely "smooth" figure would, it was felt, suggest the smoothness of the product and suggest, at the same time, that here was a Bourbon whiskey fit for the finest taste.

When the display was designed, it was conceived as a single unit to be used on a relatively small scale, as a "one time shot" to the Bourbon market. So successful, however, was the display itself, so enthusiastic the dealer reactions, that the spring of last year found the company forced to produce a successor to this unit.

Once again, the same model was sought out. This time he was dressed in a gray hat with summer suit, summer tie and in the very act of placing a bottle of Ten High into a realistically reproduced travel bag.

The series, it was decided, should be extended indefinitely and two more displays, using the same distinguished gentleman, were prepared for fall and winter use. Our Mr. Ten High greeted autumn in a raglan coat with binoculars in hand, leaning on a track rail and obviously watching a Kentucky Derby. In winter he returns to white tie and tails his Ten High Old Fashioned waiting his enthusiastic taste on the table beside him.

In the short period in which these displays have been used, approximately one year, Ten High has made the highest gain of any whiskey on the market and it is reputed to be the third highest selling whiskey.



Around the season with Ten High whiskey we see, respectively, the winter of 1937 display, a summer unit, a fall unit and the current display for the early months of 1938. All four were designed and produced by the Ketterlinus Lithographic Manufacturing Co.

ATLAST, A NEW IDEA FOR PAINTS

(Continued from page 43)

the point where it was practical to supply, in collapsible tubes, the coloring pigments required. Deterioration of these pigments was so rapid as to make the entire project an impractical dream and the whole industry has grown accustomed to turning its attention solidly against tube packaging and the supplying of pigment and base paint in separate containers.

Some few years ago, the Murphy Varnish Co. took a first step toward reopening this question. A new process of preparing the so-called fluid stainers was developed whereby, it was claimed, fast-to-light pigments were combined with a vehicle in a manner which eliminated the formation of lumps, settling, separation and floating and which would remain fluid indefinitely. These were supplied in glass jars to a group of dealers selected for experimental purposes. The quantities within each range of jars were sufficient to achieve a "card" color when mixed into a prescribed size container of the company's basic white paint.

Thus all measuring was eliminated for the consumer. Even more important, the dealer was enabled to reduce his investment in inventory, to cut down almost entirely his investment in the slow sellers, held only for the consumer's accommodation, to achieve a frequent renewal of fresh stock and a quicker turnover on his entire list, thus making for greater profits.

For the manufacturer, the new merchandising plan resulted, of course, in improved dealer relation and provided a number of manufacturing economies as well. It vastly increased sales of a single standard color—white—and thus made possible its most economical production. It decreased sales of a wide list of colors and thus made for fewer expensive changes in manufacturing processes and fewer changeovers for ''wash-ups'' of mixing and paint manufacturing machinery. Finally, for the manufacturer as for the dealer, the new plan eliminated a large number of dead items from inventory.

Yet the use of glass containers had certain inherent disadvantages. The containers were fairly expensive, required protective packing and had a relatively high shipping weight. Finally, they were not completely foolproof, insofar as they did not make certain, automatically, that the consumer would discharge from the container the maximum quantity of pigment held within it.

At the time of their origin, however, they were the most practical thing available and—on an experimental basis—the Murphy organization achieved a definite measure of success with these containers. About three years ago, the Bennett company who had been observing Murphy's experiments, saw the new "Unitainer" collapsible tubes which had been developed for G. Wash-

ington Coffee. These "one-dose" containers suggested the possibility of achieving more successful results at lower costs then would have been possible had glass containers been continued in use.

After much experimentation, the Bennett company began to merchandise tube packed pigments or colors in the Salt Lake area. Once again the idea took well with dealers and consumers. Meanwhile, Murphy watched the Bennet experiment for some two years and then decided likewise to use the "Unitainer" in place of glass jars used at the start of the experiment.

Four sizes of tube were developed, each to achieve a calibrated intensity of color in a gallon, half-gallon, quart and pint can, respectively. To clearly express the manner of use and the basic idea behind the new package, the name a la Carte Colors was adopted. Each container bears on its face an explanation of the manner of manufacture of the colors and on its rear a series of sketches explaining instantly, to the consumer, the manner in which the colors are used.

The new containers produced a very marked reduction in packaging costs, shipping costs and the store and storage area required for the merchandise. They likewise assured the proper mixing or "striking in" of the paint colors and thus made the dealer's selling job, to a great degree, easier.

Nor did the Murphy merchandising approach end with the development of this package. A complete new form of color card was devised to replace the usual swatch card which is traditional in the industry. The term "color card," in itself becomes a misnomer since the new card is a whole display panel, equipped with 66 metal pockets into which are inserted color tablets or cards representing the full range of available colors. These can be removed very much in the manner in which tickets are removed from the rack in a theatre box office, and used for demonstration purposes on counter or actually given to the consumer when it is desired to match with contrasting colors. Since each tablet stands by itself, it is possible for the consumer to visualize the contrast or harmony between colors by placing two or three tablets in juxtaposition.

With this display and with its new package, the Murphy sales force has been gradually expanding the number of dealers permitted to carry the new line. In its selling it has, of course, emphasized to the dealer the manner in which the new container permits him to achieve certain desired advantages. Selling has, in fact, been converted from a matter of placing pressure upon the dealer to carry an adequate stock into a simple process of raising and vocalizing the dealer's desires and then showing him how the new container and its associated display and merchandising features meets virtually every one of these demands.

Today, with many hundreds of dealers seeking the new line, sales increases are reported to be reaching almost fabulous totals and dealer and consumer satisfaction has come to a high point never before attained.

ITS REAL NAME

Mercurithiosalicylate

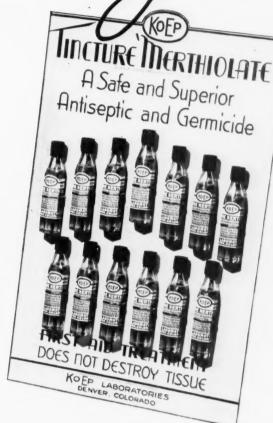
The customer doesn't know it and the clerk can't pronounce it:
But they can both see it
When it is

Carded by Bostitch

Even with a familiar name, your product will sell better if seen oftener.

PRODUCT DISPLAY makes it Easy to Buy

Small products, stapled to attractive display cards, are kept "out front," in view of the customers, a constant invitation to purchase.



"BOSTITCHING" holds them tight.

Fragile glass bottles, collapsible tubes, brightly enameled lipstick containers, and numerous other small and delicate items can be firmly and *safely* stapled to display cards by inexpensive Bostitch machines, more than six hundred an hour.

Write for free booklet: "Building Sales and Protecting Profits Through Carding and Display." Or send samples of your product for suggestions and costs of carding. No obligation incurred.

To find your local Bostitch representative, look up "BOSTITCH" in your phone book; or write direct to

BOSTITCH

58 Division Street East Greenwich, R. I.

VISIT THE BOSTITCH DISPLAY, 8TH PACKAGING EXPOSITION, CHICAGO, MARCH 22-25, 1938



Here are packages that reflect quality, assure freshness—make you want to enjoy the good things they contain—packages that sell!

Thanks to modern wrapping machinery, outstanding packages such as these can be produced at a cost which permits the goods to be sold at popular prices—prices which build large volume and good profits.

Your package can say as plainly as words that your product is of *finer quality*. Superior appearance will do it.

It can say the goods are *fresb*—in perfect condition. Wrapping which clearly indicates the utmost protection against deterioration will do this.

Your package may be so designed that the goods themselves can be seen—an effective way to create appetite appeal.

We are constantly working with manufacturers to develop new and better forms of packaging. When you have a packaging problem—whether it be to wrap a new product, or to give an old product greater sales appeal—bring it to us. Solving problems built our business.

See our Exhibit at the Eighth Packaging Exposition, Palmer House, Chicago, Booth 302 Mar. 22-28

PACKAGE MACHINERY COMPANY - - Springfield, Massachusetts
NEW YORK CHICAGO CLEVELAND LOS ANGELES

Peterborough, England: Baker Perkins, Ltd., Melbourne, Australia: Baker Perkins, Pty., Ltd.
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Buenos Aires; Argentina: David H. Orton, Maipu 231

Model FA—One of our large line of machines. Adjustable for a wide range of sizes. May be used for transparent cellulose, glassine, waxed paper, or printed wrappers.



PACKAGING PRODUCTION

MACHINERY AND EQUIPMENT



FIVE MILLION BARS A DAY

THE MUCH PUBLICIZED TOWN OF HERSHEY IS A one-industry town, built around and because of the Hershey Chocolate plant. But more than that, it is a one-man town, a town which has taken on not merely the name of its founder but a great deal of that man's personality. Its buildings, its streets, its surrounding ring of parks, rich dairy farms and golf clubs do not merely bear the Hershey name, but show the Hershey imprint in a dozen different ways.

In and around the town of Hershey, one man has attempted to bring into reality his ideal of a "model" community—neat, orderly, efficient and attractive. In the great sweep of buildings which make up the Hershey Corporation's plant, we find the industrial expression of the same man's character—the factory, which, in spite of the fact that it has grown from very small beginnings with an almost endless series of additions, reflects the

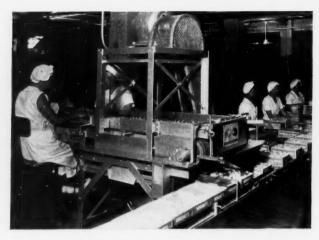
orderliness, the cleanliness and efficiency which characterizes the entire Hershey community.

The factory, like the town, can be described only in superlatives. In itself the largest chocolate processing plant in the world, it boasts the largest rooms for food processing, the largest daily consumption of cocoa and milk, the largest daily production of chocolate bars, kisses and various forms of chocolate used by the confectionery industries for further processing.

Machine after machine can be characterized only in such terms as "the greatest," "the largest," "the fast est" and "the only one of its kind." One expects and one finds a whole series of modern inventions and recent industrial developments incorporated in this complex of floors, departments, offices and warehouses which, in their aggregate, constitute the center of the great Hershey empire. And yet, through what might be merely a



1. Kisses coming on steel conveyor belts out of the refrigerating machine are dropped onto a belt which conveys them to the wrappers. This equipment was designed by Hershey engineers.



2. Kisses are dropped in bulk by this machine into cartons, the few additional kisses required to tip the scales being added by the "dribble" belt device seen just behind the main hopper.

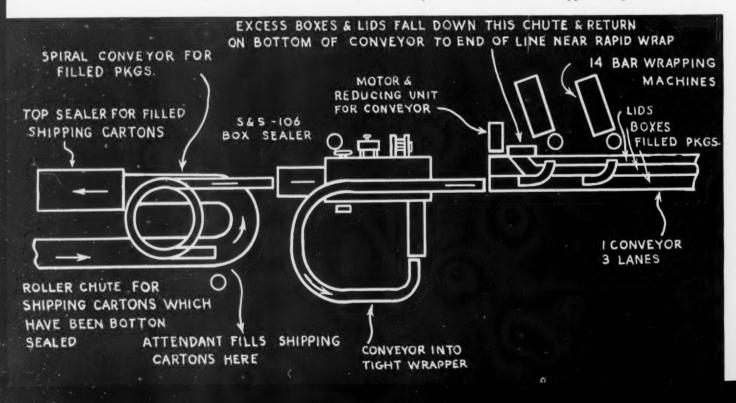
maze of mechanical novelties, there runs one coordinating thread, one dominating idea, namely, the economical production of a series of fine products with a minimum of tedious human labor and a maximum of efficient and, if possible, automatic, mechanical aid.

The visitor enters the Hershey plant through a vast building which is, in itself, unique. Its limestone walls are broken by no windows, yet, inside, in sound-proofed, air-conditioned rooms a staff of many hundreds can be seen busily at work through glass-walled corridor partitions. The building is, of course, fireproof. It boasts a lighting system which floods every room with evenly distributed light, providing an intensity of 20 ft. candles for every desk, without glare. Mercury vapor lamps and Mazda lamps are used in combination to closely approach the spectrum of true sunlight. It boasts wear-resistant, sound absorbent floors, planned especially to be easy on the feet. It boasts a scientifically worked out paint and color scheme which provides a pleasing and non-tiring horizon for the worker's eyes.

Realizing that this building and the plant itself would, like the rest of the town of Hershey, attract thousands upon thousands of visitors annually, the architects provided, in the center of this vast edifice, a two-story re-

ception room and lobby, and a separate visitors' hall which serves as the starting point for the tours which are hourly conducted through the plant. When it is realized that the number of visitors sometimes runs as high as 2000 per day, one can readily appreciate the incentive for and the necessity of careful planning of every detail of plant and offices for the convenience of visiting groups.

Approximately one-half of this windowless building is utilized by the Hershey printing department, a section walled off from the office division and equipped with its own air-conditioning system. Within this plant some 5,000,000 labels and wrappers are printed and cut every day. The press room floor, of heavy polished oak beams, is laid diagonally across the room to provide the greatest possible resistance to the wear induced by the necessarily heavy trucking operations involved in movement of large quantities of printed wraps. In the center of the room are found a battery of ten Miehle one-color presses, used exclusively for printing in aluminum ink. These operate in tandem with a series of embossing presses, each of which receives the large sheets of chocolate bar wrappers and, with a pressure of 500 tons, raises the letters of the labels from 10 to 25 thousandths of an inch upon the surface of the wrapper background.



In its own corner of the giant press room, one finds a specially built UPM-Kidder press, especially adapted for handling the light papers and cellulose wraps used on certain of the Hershey products. This unit, which cuts and stacks from a roll and then prints in three colors on a single impressing cylinder, operates, on 24 in. by 36 in. sheets, at a speed in excess of 6000 sheets per hour. Within these giant press rooms, and in the adjacent composing and cutting rooms, one gets a foretaste of the atmosphere of cleanliness which characterizes the entire chocolate production plant. In contrast to the usual printing house, with scrap covered floors and ink smeared attendants, one discovers, with some amazement, a series of highly painted, bright blue machines, gleaming under powerful mercury lights and resting on polished floors that suggest more the ball room than the factory.

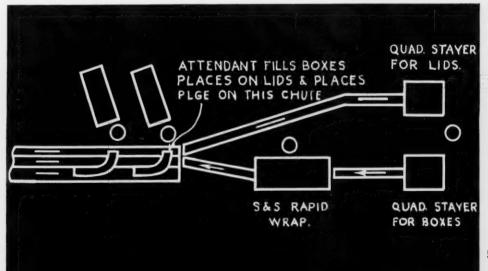
Through a covered passageway, the visitor passes to the main factory buildings. Statistics cannot but fail to convey an impression of the sweep and size of each giant room. Suffice it to say that the 3000 Hershey employees and the machines which they work with occupy over 55 acres of floor space.

Consider for one moment, the chocolate processing departments which feed the vast packaging operations. In one giant room, 116 so-called "longitudinal" machines grind the combined sugar, milk and chocolate to develop an even smoothness and fine aroma of the product. Each machine consists of a large tank or tub with a capacity of 1400 lbs. of the chocolate mixture, through which moves a heavy grinding arm, sweeping back and forth through the bath with a constant reciprocating motion. Operating on a 24-hour schedule, with a minimum of 96 hours of continuous grinding for each batch, this room produces 625,000 lbs. of processed chocolate daily.

This viscous liquid chocolate is conveyed to an upper floor where, in a similarly gigantic room, it is automatically weighed and dropped onto molds to be formed into the various shapes of chocolate bars. Each mold passes through cooling conveyors where it is subjected to a temperature of 35 degrees. In a half hour's time, the continuously moving conveyor discharges the molds at the "knockout" room. The bars are removed from the mold by a process adequately described by the name of the room. They are then placed upon trays and stacked for transportation to the wrapping departments.







- 3. As bars are automatically wrapped, these operators place them into boxes, put on the box lids and place the assemblage onto the small conveyor which drops them onto the main assembly belt.
- 4. General view of the wrapping department showing the plant-long triple conveyor belt which supplies empty boxes and box tops to wrapping machine operators and removes filled boxes.
- 5. This diagram clearly demonstrates the "smooth flow" principle carried out in the Hershey bar wrapping and box assembly line.





6. Six thousand sheets per hour are printed in three colors on this high speed unit in the Hershey printing department.

7. General view of the main press room bay. These ten presses print exclusively in aluminum ink and operate in tandem with an equal number of embossing presses which raise the lettering above the wrapper background.

The various Hershey chocolate bars are here individually wrapped, filled into boxes which are made on the spot and which are, in turn, placed into shipping cartons which are sealed and conveyed, by chute, to the storage rooms on the floors below. The entire operation is carried out on continuously moving conveyor lines which start with two machines which set up and stay the boxes and box lids which are to carry the bars. The quadruple stayer which makes the box itself feeds these to a Stokes & Smith "Rapidrap" which applies the box wrap. Then, on two parallel conveyor belts, these boxes proceed past a series of 14 automatic candy bar wrapping machines.

From the opposite end of the plant, unwrapped bars are meanwhile being fed towards the supply hoppers of each of these machines. Here, operating at a speed of from 80 to 100 packages per minute, the bars are wrapped and labeled to assume the form in which they reach the ultimate consumer.

The history of these wrapping machines, as they accumulated in the Hershey plant with the expansion of the company's business, is in itself extremely interesting as a demonstration of the progress that has been made in the package machinery field. The first machines were built some 30 years ago and operated at the amazing speed of 35 per minute. In 1913 this was stepped up to 40 bars per minute. By 1924 the speed had more than doubled once again, the machines of that era having an output rating of 90 bars per minute. Finally, the present model, introduced since 1932, attained a top speed fully four times that of the original.

The machines now used are equipped with automatic stops for both inner and outer wrappers so that no foil or wrapper is fed onto the machine should the operator miss a pocket in the feed conveyor. They are likewise equipped with electric eye attachments which position or 'register' the printed wraps in the process of cutting these from continuous rolls.

Each machine requires two attendants, one at the feeding end and the other standing between the discharge end and the box conveyor. This second operator deftly fills the boxes which she lifts, as needed, from the moving conveyor beside her and places the lid of each box into position. She then drops the filled box onto a small slanting bridge-conveyor which discharges it onto a third lane of the main material conveyor. Attached to each of the 14 bridge-conveyors is a counting device which automatically records the output of each of the bar wrapping machines. To meet the requirements of these 14 machines, the quadruple stayer and the "Rapidrap" machines operate at a speed of 54 to 55 per minute, supplying some 25,000 boxes per day.

As the filled boxes are discharged from the main line, they proceed over a spiral conveyor to an automatic box sealing machine. This unit automatically applies a covering paper to the lid of the box which covers top and sides and turns the margin over for a distance of about 5/8 in. on the bottom of the box, thereby hermetically sealing the contents. From this machine, the sealed boxes proceed through a spiral conveyor to a point where an attendant fills them into shipping cartons. The cartons arrive from the opposite direction, on a roller chute, having been previously erected and bottom sealed. They are stopped momentarily at the attendant's station for filling and then proceed through a 180-degree turn of this roller conveyor to a top sealing device which automatically closes and glues top flaps and discharges the filled cartons onto a chute leading to the warehouse rooms.

The line just described is per- (Continued on page 116)

lighting for

BETTER PRODUCTIVE EFFICIENCY

by GEORGE E. CADENAS*

ONE OF THE GREATEST AIDS TO PRODUCTIVE efficiency is good lighting-that is, lighting adequate in quantity and quality for the seeing tasks involved. Most production, even where it is highly mechanized, requires the careful scrutiny of trained eyes. This is especially true where packaging operations are involved, including inspection of goods for imperfections and filling and labeling operations. Common observation indicates that we can see more easily and more quickly under more light. Science has substantiated this by laboratory experiment, and these tests, in turn, have been substantiated by actual experiences in the field. Reports published during the last few years indicate that production increases up to 25 per cent under better lighting. The validity of these tests is better appreciated when it is considered that, at the same time they were made, other conditions affecting the attitude of workmen were en-*Consolidated Edison Company of New York, Inc.

tirely satisfactory. The psychological stimulus resulting from relief from eyestrain and a brighter environment has a lot to do with the resulting production efficiency.

By providing a pleasant working environment the employer not only receives direct compensation in the tangible form of increased employee efficiency, but there also results an improvement in employee morale which, although intangible, is necessary to achieve harmonious plant management.

Where poor seeing conditions prevail there are many minor frustrations for workmen, such as mislaid tools and difficulty in reading orders and specifications. Poor lighting is also responsible for an increasing number of industrial accidents.

In most industrial establishments, close work is done at benches or machines which are located near windows to secure maximum daylight. The artificial illumination for such locations should be planned with special consideration for the work to be done. Where local illumination of a relatively high intensity is necessary a porce-

1-2. A typical example of the changes effected by a revision of lighting facilities. At the left is a scene in a radio factory with a single row of lights in each bay. At the right, the same scene after two rows of new reflectors have replaced the single row. Note the even distribution of light at the work table and the absence of ceiling glare. Photos courtesy General Electric Co.









Lighting test equipment truck maintained by the Consolidated Edison Co.
 Testing the intensity of light at work table height for various positions of fixture.

lain enamel deep bowl reflector should be used. The deep bowl reflector with a comparatively low wattage lamp may be suspended close to the work, thus efficiently providing illumination supplementary to the general over-all illumination of the room.

The recommended intensities in foot candles for the various operations of inspection and packaging and boxing are approximately as follows: Inspection: rough, 10; medium, 20; fine, 50 to 100; extra fine, 100 or more. General machine packaging and boxing, 10.

In some cases, in packaging plants, localized lighting, of greater intensity than the room average, has been secured by means of small floodlights. These are used where a particular point in the process is all-important in the output of an entire line, as for instance in the securing of proper printing register or proper label register or positioning on a package. Frequently, too,

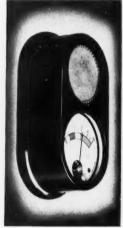
special spot and floodlights are used on inspection tables as a means of bringing the passing objects into focus one by one and of permitting their subjection to intensive inspection. Often such floodlights bring up the illumination from a room average of fifteen to eighteen to as high as seventy-five foot candles.

In some industrial processes, particularly those involving the inspection of material, it is desirable to have illumination of daylight quality. Noon sunlight is usually considered the standard white light, but North sky light is used extensively for inspecting materials or matching colors. The unmodified light of a Mazda lamp is deficient in blue and green, therefore when color objects are viewed under it they do not have the same color as under daylight. Mazda lamps may be obtained with blue-green glass bulbs called daylight blue bulbs which screen out some of the reddish rays, producing light which approaches the whiteness of noon sunlight. They are satisfactory where close color discrimination is not required. Where exact color matching is to be done, special daylight units, consisting of a housing to enclose a clear bulb lamp and a cover glass designed to modify the light, should be used.

Direct glare, reflected glare, insufficient illumination, non-uniformity of illumination, harsh shadows and gloom are characteristics of poor illumination which must be avoided in the design of any good industrial lighting installation. Direct glare usually results from the use of bare lamps or lamps that are not shielded from the eyes. This condition may be cured through the use of proper reflectors, deep enough to shield the lamp filament and suspended at a proper height. Reflected glare, although difficult to eliminate where polished or glossy surfaces are below the level of the worker's eyes, as is often the case when glass packages are being filled or labeled, may be greatly reduced by the proper placing of the light source or by the use of white bowl lamps, inside frosted lamps, or diffusing glassware.

Insufficient illumination is usually caused by the improper placing of lighting equipment with relation to the work, by the use of lamps of (Continued on page 110)

5. Two photo-electric light measurement instruments used in determining foot candle power at work points. Photo courtesy Weston Electric Co.







GIVE YOUR LABELS A CHANCE

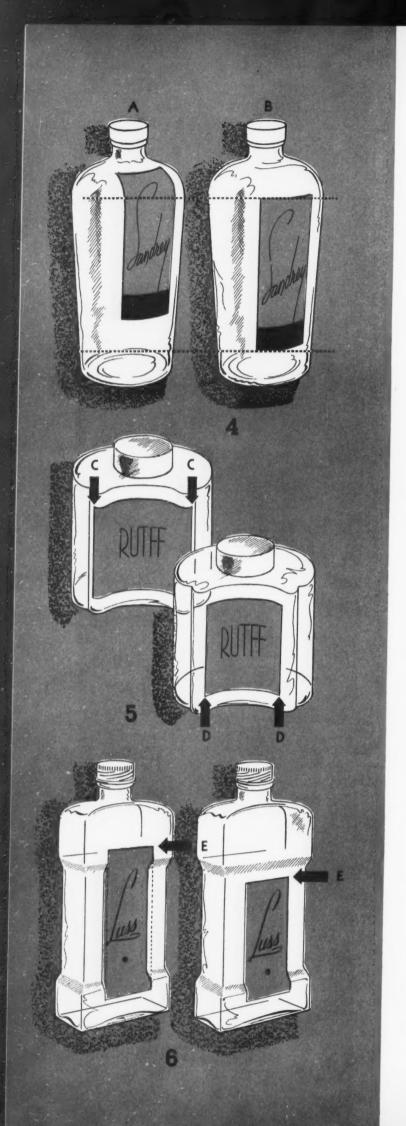
by C. H. LAMBELET*

WE ALL KNOW ONLY TOO WELL THE OLD adage "You can't tell a book by its cover." Still if one examines the trade papers servicing the bookbinding and printing trade, it immediately becomes apparent that much thought and time is being given to the jacket and cover designs to make them not only arresting, but to have them tie in with the subject matter. Likewise, with any number of articles, as displayed in stores of every nature, we see the same trend in packaging—a descriptive and eye-appealing display. In a word, the buying public is being made "package conscious."

The effort being expended today to arrive at such proper sales-promoting packages is tremendous and that results—good results—are being obtained cannot be denied. However, one sees only too often that the "artistic" is made paramount and that little or no thought is given to the possible ways and means by which the desired results can be obtained in the simplest and most economical man*President, New Jersey Machine Corp.

ner from the production standpoint. In other words, the package designer, the advertising and sales managers develop a package having all the sales-promoting and eyeappealing characteristics they desire and then dump it on the desk of the production department with a "Here it is—isn't it swell? Now we want so and so many a day—get them out—we start advertising tomorrow." Yes, it is a "swell" package, but—"this" and "that" has been incorporated in the design, materials chosen are not the easiest to handle, in fact any number of other detrimental elements may be apparent to the production department immediately.

What happens' The production department goes into a huddle. The installed equipment can almost do "this" but not "that." You need hand work for "that." The equipment manufacturer is called in. Possibilities and limitations of new equipment are discussed. In the meantime the days go by. Finally Production returns the package to Sales with notations that



if something is done to "this" and something to "that," the package can be produced economically and in sufficient quantities satisfactory to all concerned.

The designer, on receiving the results from Sales, immediately takes exception that such and such changes have been made—as for example a slight change in the contour of the bottle, let us say, or the label has been shifted a quarter of an inch from where it was originally placed or any number of similar alterations—but finally he too, in turn, is prevailed upon to okey the revamped package. Much time has been lost and now Production must "step on it" to meet deliveries.

In the above case the situation has been finally ironed out and the work can start, but only too often the possibilities and limitations of equipment are not at all well enough known to the designer or Sales, or they are too arbitrary in their stand to allow alterations with the result that, granted a "swell" package is produced, but at what a price and headache.

Above we made mention of bottles and labels. Let us just refer to this phase of the packaging problem and possibly see whether or not, by knowing what equipment is available in the market, its possibilities and limitations, the same general result of the designer could be obtained without sacrifice in economy or production.

Naturally, the first important step is the choice of proper materials for the label. The market today affords equipment which will handle the various grades of paper, paper-backed metal foil or metallic seal material-yes, and even certain types of fabrics if paper-backed. Consequently, we have a wide choice but it should be borne in mind that the proper material to use will depend on the contour of the bottle to which the label is to be adhered.

As a rule lighter weight pliable papers should be chosen, particularly when the label is to be adhered to curved or cylindrical surfaces. On flat surfaces, this is not so important. Paper-backed metal foil labels or metallic seals, contrary to general opinion, are well adapted to curved or cylindrical surfaces for machine application and their use should be made more general, especially when highly decorative features are desired.

The grain of the paper is also of great importance for ease of operation and should be specified to run parallel to the base of the bottle. Often when the designer wishes to use a heavy paper stock in the label to give a desired effect, the same results may be obtained by using a light stock covered either with a pliable varnish or lacquer, preferably the latter. So much in a general way as regards materials.

(Continued on page 112)

It takes only a little intelligent advance consideration to devise labels that may be applied at top machine efficiency and often, as these illustrations show, such consideration produces a better looking package as well as a less expensive one.

PETERS

CARTON PACKAGING MACHINES



for setting up and closing cartons inexpensively



It's the cost per package that counts! Recently a large manufacturer who had slow equipment thought he was doing an economical job of packaging. He had been proud of his packaging department until he found that faster, completely automatic machines could be obtained from PETERS. When this matter was brought to his attention and he investigated the savings which could be realized, he was most surprised. Yes! He lost no time installing this new, faster, modern PETERS equipment.



Likewise PETERS machines are manufactured to meet production programs of small and medium size manufacturers . . . Machines to operate at speeds from 30 to 60 cartons per minute.



Send your problem to us and let our experienced engineers recommend the most efficient equipment to set up and close your cartons. We assure you of a prompt reply.

PETERS MACHINERY CO.

4700 Ravenswood Avenue, Chicago, Illinois

CONTINUOUS FLOW AT NORWICH

by L. H. GRADY*

IN PLANNING A MATERIALS HANDLING SYSTEM to be as efficient as possible, problems of some nature invariably confront those engineers involved. In many cases these problems are of the more common type, and are solved quickly. Then, again, in other instances, the difficulties are unusual and are not so quickly eliminated.

At the Norwich Pharmacal Co. the difficulties were of the latter type because of several factors. In the first place, the three existing buildings involved were a source of trouble. This does not mean that they were in bad repair. In fact they were in excellent condition, as units. The difficulty was in the radical differences in the physical characteristics of the buildings. The floor level, head room and area of each differed from the other two, and although they were ideal when appraised indi-

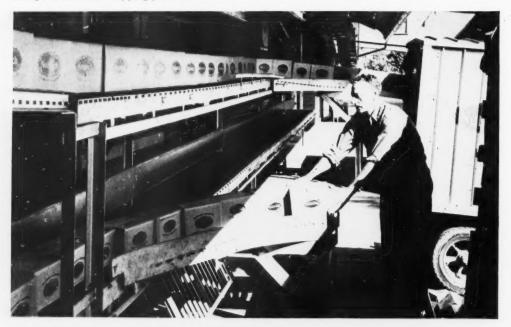
vidually, it was not an easy task to knit them into one unit by a mechanical handling system.

A second factor which contributed toward the difficulty of this propostion was the size and shape of the cartons to be handled. The company in question manufactures an extensive line of pharmaceuticals which are packaged in bottles of every conceivable size and shape, and which range in capacity from a fraction of an ounce to a gallon. Then, in addition to this line they also put out quite a number of "buyer's name" items, the containers for which likewise differ widely in size and shape. Consequently the cartons handled on the conveyors range from minute sizes to large, bulky ones.

To add to the already mentioned unusual factors involved, we note that the company did not warehouse finished goods within the main plant but carried them

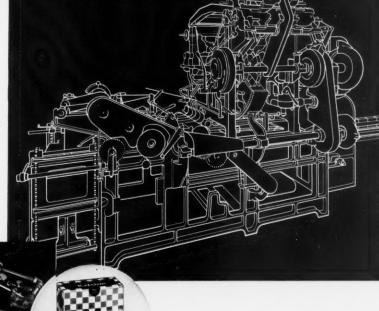
* Engineer, Mathews Conveyer Co.

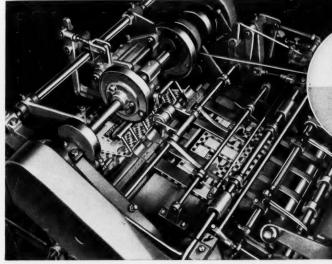
Receiving and shipping platform at main plant. Incoming cases of filled bottles are on the upper line.
 Inclined belt conveyor at right taking empties to bottling department. Declined belt conveyor at left taking full cartons to shipping platform.





Suction feeds it-





one sheet at a time ...every time

The many recent changes in wrapping materials have introduced a number of new and more difficult-to-feed papers of heavier weight and with varnished and highly coated surfaces.

This photo shows the operation of Pneumatic's suction feed. A few of the wrappers on the top of the stack in the magazine are separated by blowing a stream of air against the edge of the stack. With the top sheet literally floating in the air, suction fingers travel across to the edge of the pile and pick it off. These fingers then feed it thru rolls into gripper belts which in turn feed it over the revolving glue roll where a thin film of adhesive is applied to the underneath surface.

Typical of the way its advanced designing anticipates modern developments, Pneumatic developed its tight wrapper feeding to meet these new conditions. Pneumatic engineers found suction the answer to the greater sensitiveness required. This suction feed as Pneumatic uses it, can be depended upon to feed only one sheet at a time, every time — no matter what the weight or surface of the stock used. And it is very simple and easy to control.

It is often convenient and advisable to have printed wrappers supplied in a continuous roll, instead of individual sheets. For the handling of wrappers in rolls Pneumatic uses an electrical registering eye and cut-off device which is equally sure and efficient for any kind of material.

 $\textbf{Write for the full facts on Pneumatic Tight Wrapping-ask for Bulletins No.\,5 and\,30.}$

PNEUMATIC SCALE CORPORATION, LTD., 71 Newport Ave., Quincy, Mass. (Norfolk Downs Station)
Branch Offices in New York; Chicago; San Francisco; Los Angeles; Leeds, England; Paris; Melbourne; Sydney, N. S. W.; Wellington; and Buenos Aires



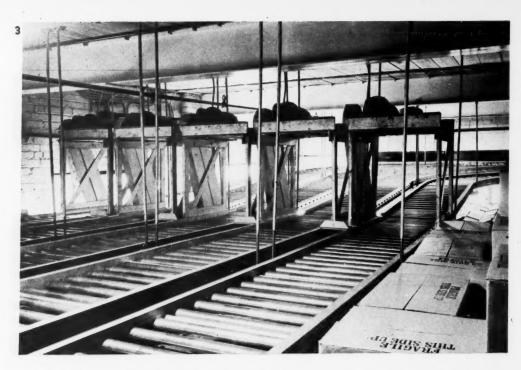
PNEUMATIC SCALE

Packaging Machinery











3. Battery of live roller storage conveyor lines in empty-bottle warehouse. 4. Bottle filling room with inclined chute leading to sealer on floor below.

in a special warehouse about one-half mile from the main plant and located adjacent to a railroad siding.

The reason for citing these factors is merely to give an idea as to the trouble involved in handling the materials through the plant as production was stepped up steadily, finally necessitating re-organizing and re-equipping, and the installation of a well-engineered conveyor system.

The equipment which eliminated these various production "bottle necks" at the Norwich plant consisted mainly of belt-driven live roller conveyors, with the rollers spaced closely enough to accommodate the smallest carton to be handled. Over thirteen hundred feet of this live roller equipment was applied. The problem of elevation differences between the three buildings was overcome by the application of short inclined belt con-

veyors or "boosters" as they are commonly called. An unusual feature of this system from an equipment standpoint is the total absence of straight-lifts, spiral chutes, vertical hoists and pusher-bar elevating conveyors. Although very extensive and capable of doing the job at hand to perfection, the system includes only live roller, belt and gravity roller conveyors.

Let us follow a few cartons through the plant, from empty bottles received to shipping platform, and see just how the system operates, keeping in mind the unusual features which make it an outstanding example of modern inter-building and intra-building materials handling, based upon the continuous flow principle.

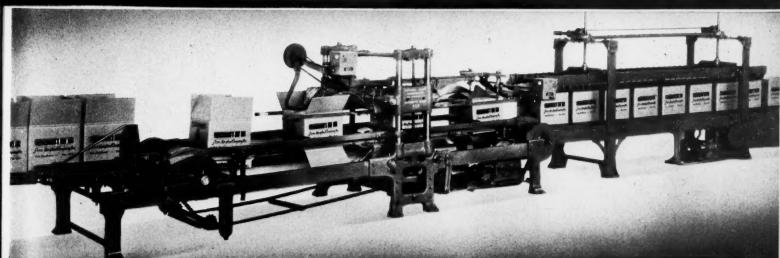
Carload lots of bottles of the specified shapes and sizes are received daily at the warehouse siding, located about

FROM SOUP TO NUTS . . .

Among Canned Goods Packers Everybody STANDARD CASE SEALERS! Uses

Check over the list and you'll find every major packer using Standard-Knapp Case Sealers. Most of them have used nothing else for more than a dozen years. In this field as in so many others, Standard-Knapp equipment is truly standard . . . preëminent because it provides life-long service at low cost and minimum attention and upkeep. Check with us when it comes to case sealing.





STANDARD-KNAPP CORPORATION

MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES

43-27 32nd PL., LONG ISLAND CITY, N. Y. 208 W. Washington Street 1001 Society for Sav. Bldg. CHICAGO . CLEVELAND

909 Western Ave. SEATTLE

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300 Seventh Street SAN FRANCISCO 315 South West Pine Street PORTLAND, OREGON

Windsor House, Victoria St. LONDON, ENGLAND

one-half mile from the main plant. These are packed in reshippers when received. Company trucks haul them to the main plant, leaving them at the receiving platform. These trucks are tractor-trailer affairs, which can be quickly coupled and uncoupled, so that a tractor can leave a trailer-load of empties at the platform and take away a load of filled cartons to be stored in the siding warehouse. The same platform is used for both receiving and shipping. Lines of roller conveyors, one above the other, are applied on the platform, the lower line handling empties from trailer to bottle warehouse, and the upper one handling filled cartons from case sealer to trailer. Collapsible bridges extend into the trailer beds, expediting loading and unloading operations. The tractors used waste no time or effort by empty hauls. They are always loaded during their travel to and from the siding warehouse.

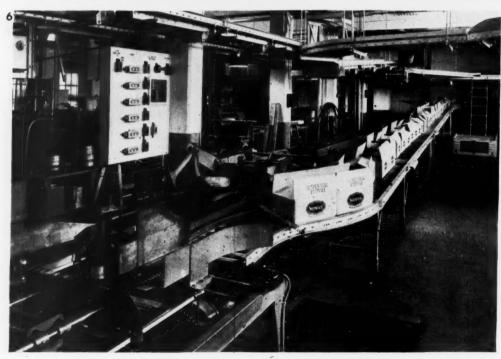
The cartons of empties are unloaded onto the platform conveyor (lower line) and move down into the bottle storage area, which is the lowest point in the entire plant, and to which we shall refer hereafter as Building No. 3. They are stacked in this building if space is available, and when it is not, travel to the second floor of Building No. 2, via inclined belt conveyor, there to be stored until needed.

Perhaps it would be well at this point to explain the function of the three buildings involved. We shall refer to these as No.1, No. 2 and No. 3, the first being the bottle filling section as well as the general manufacturing plant, and the remaining two constitute empty bottle storage areas.

The storage conveyors applied in Buildings Nos. 2 and 3 are of the live roller type and are designed to be of such length so as to accommodate (Continued on page 108)

5. Bottle filling department. View shows stainless steel work tables and roller conveyors underneath.6. Filled cartons approaching sealing unit. Note the convenient control panel at left.





It's a STOKES & SMITH Powder Filler

at AMMEN'S



S & S Automatic Powder Filling Machine at Ammen's.



Une of the latest S&S installations is in the plant of the Charles Ammen Company, Ltd., at Alexandria, Louisiana.

Here Ammen's Powder is filled into distinctive cans on an S&S Powder filler. Briefly, the cans are fed on an automatic conveyor, swiftly, cleanly and accurately filled and carried away ready for easy closing. Full details of the Ammen's installation and many similar ones will be gladly furnished upon request.

There are many types of Stokes & Smith Packaging Equipment for filling, carton filling and sealing and tight-wrapping. A recent addition to the S & S line is the Transwrap Machine, which automatically seals many products in transparent cellulose and other materials.

Among the many varieties of S&S Packaging Equipment, from single units to complete packaging lines, there may be one or more units that will facilitate your packaging operations—whether you require speeds of 15, 30, 60 or 120 packages per minute.

STOKE SESMITH @
PACKAGING MACHINERY
FRANKFORD, PHILADELPHIA, U. S. A.

Equipment and Materials

NEW DEVELOPMENTS IN PACKAGING MACHINERY METHODS AND SUPPLIES

HAND OPERATED LABELER

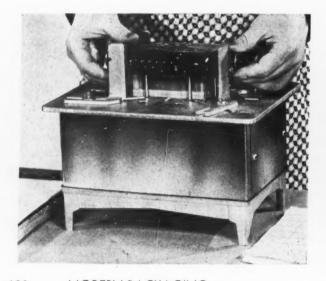
The Ever Ready Label Corp. is marketing a new device designed to simplify the application of gummed labels to flat-faced bottles. The unit consists of a metal platform, equipped with six upright rods so adjusted on springs as to form a cage for a pile of labels which the rods hold in any desired position. Four upright rods, likewise adjustable as to position, are used to set the bottles in proper relationship to the label. In use, the labeling operation is reduced to a simple three-motion performance. The operator first moistens the face of the bottle on a specially designed pad for this purpose. Then placing the bottle into position against the metal guides, she applies pressure downward. The spring operated upright rods give way until the bottle comes into firm contact with the gummed face of the label. To finish the operation, surplus moisture is wiped away on a second pad provided for this purpose.

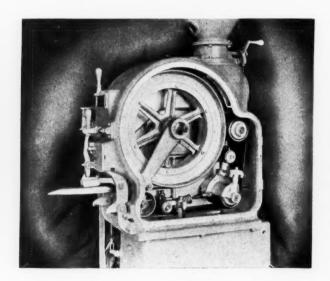
It is claimed that this device permits the application of as many as 30 labels per minute and prevents curling of labels or the trapping of air bubbles under the labels.

The machine occupies a space of about 12 in. by 8 in. and stands 10 in. high. It is adjustable to any size of bottle from ¹/₄ oz. to a quart, to any shape of bottle, provided the face is flat. Positioning of the label is automatic once the adjustments have been made. The body of the machine is made of aluminum, the bottle guides and bearings of bronze and the label guides of stainless steel.

"BELT" TYPE VALVE BAG PACKER

The St. Regis Paper Co. has recently produced a new type of packer for use in conjunction with multi-wall paper valve bags, for the automatic packaging of granular and crystalline food products or chemicals such as salt, sugar, calcium chloride, ammonium sulphate, etc. The packer may be used for the filling of multi-wall bags of from 25lb. to 100-lb. capacity. The filling rate varies somewhat with the physical characteristics of the material being packed but ranges from 6 to 10 100-lb. bags per minute with a single operator. The material to be packed is preweighed by an automatic scale and dropped into the hopper directly above the machine. The material feeds at a governed rate of speed into a groove in a large pulley, in which it is confined by an endless belt. As the material is whirled through an arc of 90 deg., centrifugal force presses the material tightly against the rapidly moving belt, so that it is quickly accelerated. At the end of the arc the material continues on at a tangent to the pulley under its own momentum and is directed through a filling tube into the paper valve bag. Earlier machines used in filling rock products as cement, lime plaster, gypsum, etc., utilize a high speed impeller which forces the material into the bag. The present machine substituted the belt for the impeller since the latter is not suitable for the packing of granular or crystalline products because of pulverization of the product during the packaging operation. The new machine, it is claimed, eliminates this possibility.







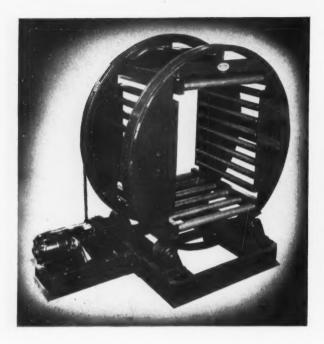
He Couldn't "Take It!"

The Dodo couldn't adapt himself to changing conditions. Now he's "gone with the wind."

Yesterday's adhesives aren't good enough for today's exacting needs . . . Don't be a Dodo.

NATIONAL ADHESIVES CORPORATION

NEW YORK—CHICAGO—PHILADELPHIA—BOSTON—SAN FRANCISCO—and All Principal Cities





POWER OPERATED ROLL-OVER

The Mathews Conveyer Co. has developed a new type of roll-over device for use on conveyor lines where it is desired to turn miscellaneous cartons 180 degrees so as to rest on their tops before entering a bottom type carton sealing machine. On smaller sized cartons it is necessary that the flap of the carton be closed and held down with a small piece of tape before being up-ended.

As the cartons enter the roll-over, the operator starts the machine by depressing a switch. The carton slides up against the rolls on the side of the unit and is conveyed on its side, as the unit is revolving, until it comes to rest against the tread opposite that which it entered. After 180 degrees of travel, the unit automatically stops. Another carton is then inserted which pushes the one left on the machine onto the line of the gravity roller conveyor, feeding into a belt conveyor which, in turn, feeds the sealing machine. With the next carton in position, the switch is then pressed and the operation of the unit is reversed. After 180 degrees of travel, the conveyor is automatically stopped, bringing the roll-over to its original position.

This cycle may be repeated indefinitely, each phase requiring 10 seconds. The largest carton handled in this unit is 37 in. long, 24 in. wide and 33 in. high. The smallest carton is 27 in. long, 20 in. wide and 21 in. high. Maximum weight 125 lbs.

NEW "SWING SIFTER" CLOSURE

A new type of sifter top for fibre cans has been developed by Cross Paper Products, Inc. Designed by Michael D'Andrea, the device consists of a punched metal sifter, enameled in any color, seated on a felt lined disk which is claimed to prevent the seepage of powders and similar sifting products. The disk and sifter are set on the top of the can and held in place by a spun ring,

assembled over these parts. The action of the sifter is obtained by turning an embossed rim on the metal top so that the punched portion is in juxtaposition with the hole in the felt lined disk.

The spun ring and the body label of the can may be had in any color or decorative combination just as in the fibre can. The "swing sifter," on which patents have been applied for, is available in $^{13}/_{16}$ in., $1^{1}/_{8}$ in. and $1^{9}/_{16}$ in. diameter as standard sizes. Other sizes may be made up on order. It is claimed that the sifters are equally well adapted for use on acetate or glass vials for dispensing powders, granular products, pills or tablets. When these latter products are to be dispensed, a larger punched hole is substituted for the small sifter holes.

NEW CLOSURES

Victor Metal Products Corp. is now producing a line of closures molded of a new transparent Bakelite material. Colors at present available are transparent green, amber, and ruby red. It is claimed these closures do not react chemically with alcohol or similar ingredients used in manufacturing toiletries and drugs.

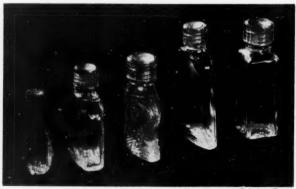


Photo courtesy Bakelite Corp.

BETTER PROFITS THROUGH LOWER PACKING COSTS





ent, and instan-electrically auger insures





These machines are also furnished for gross weighing or volume filling. Material is filled into container from top

YOUR INQUIRIES ARE TREATED CONFIDENTIALLY

PACKOMATIC

PACKAGING MACHINERY

when it does not require packing.

Advantageous buying of raw materials and economical processing are not enough to keep production costs at a minimum. Packing of your product at maximum efficiency is necessary to the realization of your full potential profit.

A Packomatic Auger Packer, for a small investment, handles a wide variety of products and container sizes. It is simple in design, easy to operate, and rapidly cleaned when changing from one product to another. Especially suited to handle all types of non-free-flowing powdered products.

Machines will operate at speed 10 to 35 packages per minute, depending upon size, product, opening in container, and packing pressure. Will handle ing pressure.

1 oz. to 5 lbs.

Machine Will Handle

Drug Powders Pharmaceuticals Ground Spices Flours **Dental Powders** Putty **Plastic Pastes** Cleaning Powders **Poultry Remedies** Malt Powders **Bluing Powders** Chocolate Powders and many others



PACKOMATIC

AUGER PACKER



NEW YORK

ST. LOUIS

-REPRESENTATIVES-

J. L. FERGUSON COMPANY, JOLIET, ILLINOIS

BOSTON CHICAGO SAN FRANCISCO DENVER

NEW ORLEANS

LOS ANGELES

CLEVELAND

YOU ARE INVITED TO VISIT OUR BOOTH DURING 8th PACKAGING EXPOSITION PALMER HOUSE, CHICAGO MARCH 22 to 25



Plants and personalities

THE OWENS-ILLINOIS GLASS CO. announces the election of Smith L. Rairdon as vice president, general sales manager and director of the Owens-Illinois Can Co.

Mr. Rairdon, who joined the sales force of the Owens Bottle Co. in 1924, working out of its New York branch, was appointed assistant sales manager of the pharmaceutical and proprietary division of the Owens-Illinois Glass Co. shortly after the merger of the Owens Bottle Co. and the Owens-Illinois Glass Co. in 1930. In 1931 he became sales manager of that division and in 1935 assumed the duties of eastern district sales manager. With the assumption of his new duties, Mr. Rairdon will take up headquarters at the Toledo offices of the firm.

Edward F. Glacken, formerly sales manager of the dairy container division, will take over Mr. Rairdon's former duties as eastern district sales manager, establishing his headquarters in New York City. Mr. Glacken has been with the Owens-Illinois Glass Co. since 1930 when the Atlantic Bottle Co., of which he was president, was acquired by the Owens-Illinois interests. H. P. Blodgett will serve as assistant to Mr. Glacken.

THE JAPAN PAPER CO., New York, announces the election of Alvin G. Brush, chairman of the board of the American Homes Products Co., to its board of directors. The company's present officers, Richard T. Stevens, president; George A. Nelson, vice president, and general manager; Howard Clayton, vice president and treasurer and Warwick C. Miller, secretary, have been reelected. The company also reports the addition of a number of new lines of domestic and imported European papers to their present line.

WOOD, NATHAN AND VIRKUS CO., INC., New York, has purchased the Paul J. Barnard Manufacturing Co., Racine, Wis., manufacturers of Domore Automatic Process Embossers. All shipments will go forward from the Racine plant as heretofore, but orders for parts will be handled in the New York offices. Mr. Barnard will continue to have charge of the building and servicing of Domore machines.

THE ACME STEEL CO., Chicago, Ill., announces the removal of its purchasing department from the general offices at 2840 Archer Avenue to Acme's Riverdale Works, about 15 miles south of Chicago's loop. The

department, in charge of H. L. Brueggemann, purchasing agent, will be located in the new million dollar addition recently completed. The other departments which have comprised the general offices will remain at the Archer Avenue location. H. L. Bills has been appointed as director of personnel and industrial relations. Mr. Bills will be located at the Riverdale Works.

CELLULOID CORP. has enlarged its sales offices in the Merchandise Mart, Chicago, to take care of expanding Middle West business. W. K. Woodruff is Middle West district manager. The company also announces the opening of a new sales office at Worcester, Mass. R. S. Gavitt has been appointed New England manager.

F. J. STOKES MACHINE CO., Philadelphia, Pa., announces the appointment of Robert Platt, 20 N. Wacker Drive, Chicago, as representative in that territory for Stokes vacuum pumps, processing equipment, tablet machines and other types of special equipment for food manufacture.

ERIC G. FORSBERG, formerly associated with Lord and Thomas and Benton and Bowles, Inc., has joined the sales and merchandising staff of Polygraphic Co. of America, Inc., New York.

FRANK E. PUGH, president of the National Color Printing Co., Inc., Baltimore, Md., died on January 5.

THE E. F. SCHMIDT CO., Milwaukee, Wis., has appointed W. C. Pohrte as Chicago district contact man, with new offices at 59 E. Madison Street.

FRANZ EULER, formerly of H. D. Catty-Franz Euler Corp., has resigned as treasurer of that company and has opened a business of his own at 30 West 15th Street, New York. Among other lines he will handle Sylphrap-Sylvania cellophane.

WEINMAN BROTHERS, Chicago manufacturers of gift and advertising specialties, has established a complete plant for the manufacture of rigid transparent containers and displays. The company's facilities include special equipment for the fabrication of containers utilizing metal bottoms and covers. The Chicago office and plant are located in the Merchandise Mart. Richard G. Ehrlich, 11 W. 42 St., New York, has been appointed as Eastern representative of the Company.

THE ACME STEEL CO. has developed a new type of colored stapling wire known as Colorstitch, designed to replace the old copper-color or galvanized wire stitch used for assembling, closing and reinforcing packages. The new material enables boxmakers and shippers to select a color of wire which matches or complements the color scheme and design of their containers. Colorstitch can be manufactured in practically all colors and shapes. The wire is first galvanized and then colored. The finish, it is claimed, will not chip or peel as the color is applied by a special process which forces it to adhere closely to the metal. Coils are of continuous length to permit speedy stitching without pause for change of coil and are furnished in 5- or 10-lb. units. All standard flat stapling wire sizes are available, the company announces, in the new type of wire.



Fashion Frocks, Inc., utilizes a light blue box with black paired stitches running horizontally around each corner. The red and yellow color combination of the SteinGold Beer carry pack is emphasized by red wire stitches.



Golf clubs appear in a dark blue stitched box with stitches of light blue shade incorporated as a part of the box design.



The Cudahy Packing Company's special Christmas box utilizes red wire stitching to match the red of its traditional red and green holiday decorations.

TWO WAYS TO SAVE MONEY

in your wrapping department

Fast

Adjustable

Low-Priced



MILLER MODEL MPS WRAPPING MACHINE

description in Cellophane, waxed-papers or waxed foil. Quickly adjustable, without tools. Saves time, space, material!



12 MILLER SPEED-WRAP

... delivers cut sheets of Cellophane or kraft paper from the roll, with glue applied. Perfect for speedy banding... full-wrapping ... bundling. Speeds up wrapping 300%!

PROFIT by writing!



WRAPPING & SEALING MACHINE CO.

14 So. Clinton St.

CHICAGO



Unless otherwise indicated, copies of catalogs, booklets, etc., mentioned in this department may be obtained without charge by writing to the sponsoring company at the address given.

THE AMERICAN COATING MILLS, INC., Elkhart, Ind., are distributing to the trade a new stock booklet showing printed samples of A.C.M. clay coated folding boxboard. The samples are divided into two groups: one set of samples consisting of board, clay coated on one side with a manila back, not embossed, and the other set embossed in alligator pattern with manila back. Included are fourteen different stock colors and also gold, silver and white. Sample books available on request.

THE HINDE AND DAUCH PAPER CO., Sandusky, Ohio, has issued a booklet titled "How to Use Color on Corrugated Shipping Boxes," a non-technical discussion on methods of making shipping boxes more effective for display purposes.

THE UNITED STATES TARIFF COMMISSION, Washington, D. C., has issued a 161 page report titled "Commodity Packaging Data." Information on inner and outer containers and packing materials used for domestic, import and export shipments of representative products is completely summarized. The publication is a valuable guide to those confronted with tariff problems and will also serve as reference material for use by shippers and carriers and other groups interested in the transportation and distribution of goods.

GAIR OLD TIMERS ASSOCIATION, New York, recently published an interesting booklet describing the ceremonies attending the recent unveiling of a bronze plaque erected by the Association to the memory of the late Robert Gair on the tenth anniversary of his death. The plaque was unveiled at the corner of York and Washington Streets, Brooklyn, N. Y., in honor to Mr. Gair, whose progressive attitude and inventive genius made him a leading figure in the packaging industry.

E. I. DU PONT DE NEMOURS AND CO., INC., Rubber Chemicals Division, Wilmington, Del., has issued the first copy of their new publication, "The Neoprene Notebook." The "Notebook" is planned to give the engineer and the manufacturer laboratory data, engineering information and application reports on Neoprene. Issued periodically, copies are available on request.

THE GRADUATE SCHOOL OF BUSINESS ADMINIS-TRATION of Harvard University has recently published four monographs of particular interest to packagers. "A Test of the Consumer Jury Method of Ranking Advertisements," while focusing attention on advertising rather than packaging, discloses a number of facts which might well be observed by those who rush to utilize the consumer jury method for package testing. "The Use of Statistical Techniques in Certain Problems of Market Research" will prove of interest principally to the research departments of merchandising organizations, being perhaps too highly technical in its approach to prove of much use to the amateur market researcher. "Truck Selling" and "Merchandising of Cotton Textiles," on the other hand, may be found of marked usefulness by manufacturers of packaged food or textile items, respectively. With the exception of the monograph on Cotton Textiles, which sells at \$1.50, each of these may be had at \$1.00 by application to the Graduate School of Business Administration, Harvard University.

THE JAPAN PAPER CO., New York, has issued a new swatch book carrying a group of new additions to its Natsume line of hand-made box and display papers. This represents, the company reports, but one of a group of recent additions to its large collection of domestic and imported European and Oriental papers.

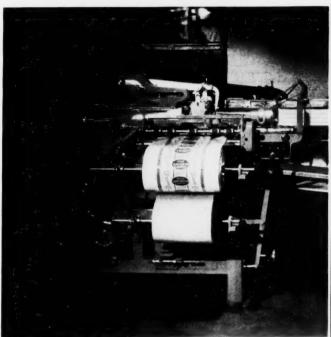
MODERN TRENDS IN THE SWEDISH PACKAGING INDUSTRY, published in brochure form as a reprint from Svensk Reklam and available on request to the Swedish Paper Converting Journal, depicts some of the aspects of packaging practice and design in the one non-English speaking country where packaging practices are most similar to those of America.

ACCORDING TO BRITISH PATENT 465, 555 (granted to Nord-deutsche Seekabel werke Akt.-Ges., Nordenheim, Oldenburg, Germany, June 10, 1937), a method of cementing polystyrene resin in sheet form to paper for use as wrappers, bags, or box linings, is now available to packagers of food products where protection from moisture is necessary or desirable. This method, it is claimed, provides a moisture-proof wrap with high tearing resistance. Reinforced polystyrene foil is obtained by stretching a sheet of polystyrene resin in all directions while in a plastic condition and cementing it to fabric or paper. Both sides of the sheet may be coated to insure a double measure of moisture protection, if desired. Complete adhesion of the polystyrene foil to the sheet is accomplished by soaking the foil with an organic solvent (benzene, or benzene combined with gasoline or alcohol) before it is pressed to its base.

MATTHEWS CONVEYER COMPANY has published a 32 page book, "Natural Laws Applied to Production," dealing with the continuous flow principle of handling materials. Copies are available on request.

NEW!

PACKAGE WRAPPING MACHINE



* The Hayssen Package Wrapping Machine is a fully automatic unit. It is readily adjusted to various sizes of packages and will wrap with self-sealing Cellophane, waxed paper or any other heat sealing wrappers.

Some Outstanding Features:

- 1800 packages per hour
- Variable Speed Drive
- Thermostatic Heat Control
- Simple mechanical construction
- Easily adjusted to various size packages

These machines are built for years of satisfactory and economical service. A guarantee by Hayssen means no cost to you if machine does not perform as stated. We invite your inquiry for more detailed information.

HAYSSEN MANUFACTURING COMPANY SHEBOYGAN . WISCONSIN

SPECIALISTS IN WRAPPING MACHINES FOR 30 YEARS

SEE OUR EXHIBIT AT PACKAGING SHOW-PALMER HOUSE-CHICAGO-MARCH 22-25-BOOTH No. 608

THE HAYSSEN AUTOMATIC Exact Weight Scales

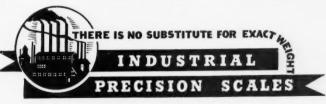
Eliminate Weighing



Inaccuracy of a packaging scale may mean that instead of having actually 16 ozs. in a pound of product, the scales may be packing $16\frac{1}{2}$ ozs. or more. Taking such a possible error as an example, the extra half ounce in that package is negligible, but if a thousand packages are weighed in one day by the packer, then 500 ounces or 31.25 lbs. are actually being given away. Multiply this overweight by the average number of working days in the year (260), and this half-ounce leak per package will amount to 8125 lbs. of your packaged products, thereby sacrificing a normal profit due to poor or improper check-weighing equipment.

> Write today for full details for your particular plant.

THE EXACT WEIGHT SCALE CO. Columbus, Ohio 222 W. Fifth Ave.



CONTINUOUS FLOW AT NORWICH

(Continued from page 98)

enough bottles to keep the fastest bottling line supplied with empties for at least one-half hour. This feature enables warehousemen to keep the storage lines filled, and at the same time unload and stack empties coming in from the platform. If the type of bottle coming in is being filled at the time the empties are received at the platform, these bottles are not stacked in storage but are dispatched direct to the filling room over any one of the various storage lines.

These live roller storage lines are suspended from the ceiling in the bottle warehouse (Building No. 2), being looped about the building so as to provide empty bottle storage which is several hundred feet in length. Once these lines are loaded, bottling operations can proceed with little danger of empty bottle shortage since the storage conveyors can be loaded much more rapidly than the bottles are used at the fillers. Workmen have ample time to warehouse incoming empties and need not watch the storage lines closely. The length of these lines eliminates the common trouble and confusion resulting from poor service to bottling machines.

Switch panels, governing the control and adjustment of the various live roller lines and production machinery, are located at strategic points in the buildings so that conveyors anywhere in the entire system can be operated remotely by warehouse workmen.

From the storage conveyors the empties move as needed into the bottling area located at right angles to the empty bottle warehouses. The first floor of the building is the main manufacturing plant, and the upper floor is used for bottle filling, repackaging and inspecting. This department consists of six complete bottling lines arranged to feed from both ends toward the center. Each line has its own supply conveyor (warehouse storage line) and its own delivery conveyor, the latter leading to the central case sealer, which accommodates the output of all six lines. Three of the bottling lines are fully automatic, while the others are of the semi-automatic type. The latter are located at the end of the building nearest to the warehouse, being comparatively slow and requiring the shorter supply conveyors. When entering the building, these short supply conveyors branch out almost immediately to the semi-automatic filling machines. However, the three supply conveyors serving the automatic bottling lines, which are much faster and require longer storage lines, travel the entire length of the building before branching down to their respective bottling lines.

Live roller conveyors were selected for this particular job because they could easily be applied overhead, and were the most suitable type for storage conveyors, offering the greatest capacity for stored cartons. Then, too, the method in which they are applied eliminates any possible window obstruction. In this regard, it should

be noted that the Norwich bottling department is an outstanding example of cleanliness and brightness.

The bottles reach the head-ends of the bottling lines and are at that point emptied from the cartons. They are thoroughly cleaned, then capped and labeled and finally pass onto belt conveyors, beside which are located stainless steel work tables. These conveyors take the bottles around past the operators, who inspect them carefully. After inspection the bottles pass to the repacking zone on the same belt conveyors and are placed backintocartons. Empty cartons are handled from dumping point to repacking zone by an overhead conveyor.

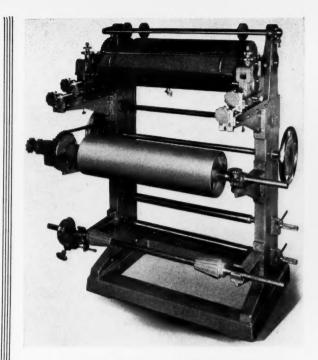
After being carefully repacked, the refilled cases are dispatched down through floor openings onto lines of roller conveyors which lead to the sealing unit. The floor openings mentioned are entirely within the limits of the conveyor frames.

The cartons approach the sealer, which is capable of handling the output of the entire bottling set-up. The overhead conveyors ahead of the sealer are quite long and provide ample detention to permit five lines to fill up while the sixth is being emptied. In other words, these delivery lines never fill up to the extent that production would be stopped to avoid confusion. We might mention that the sealer employed in this plant is of the latest type, being capable of almost instant adjustment electrically. The printing device at the head of the sealer is a unique one. Rings are made up prior to bottling each day, and these are assembled on drums, which are changeable within a very few minutes. This practice eliminates delay after production has begun.

In following this system through, the total lack of confusion and rehandling is the impressing feature. A great volume of material is handled through the three buildings daily, with a minimum of worker fatigue and delay. It is a perfect example of the "continuous flow" trend in materials handling.

TWO COLOR MOLDING

Universal Plastics Corp. has developed, it is claimed, a molding process which makes possible the molding together of phenolic or urea molding combinations of contrasting colors, in a single molding operation and in a predetermined and fixed surface design. Unlike previously available methods whereby molded decorations were inserted, cemented or glued into the surrounding material, this new process, it is stated, actually molds two colors together, thus resulting in an insoluble and firm bond between them. Since both colors are of materials having the same physical properties and chemical resistance and thus can only wear out simultaneously, if at all, difficulties which formerly arose when paint or lacquer was used to achieve multi-color effects on plastics, are not anticipated. Furthermore, the surface bearing the decoration is smooth and polished without ridges or cavities, unless such raised figures are specifically desired and planned for in the molding process.



ANILINE PRINTER

for one to four colors with rewinder for roll printing or for use in connection with Bag Machines, Sheeter, or other converting equipment.

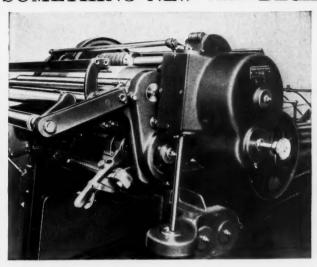
HAIDA ENGINEERING CO.

Manufacturers of Coating, Waxing, Gumming, Laminating, and Special Machinery

145 West 24th Street

New York, N. Y.

SOMETHING NEW FROM BECK

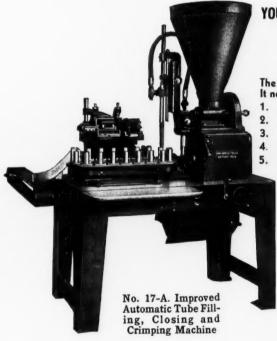


To those leaning on the importance of greater economies thru waste elimination and precision accuracies in "Spot-Sheeting" do we address our invitation to investigate our new

DIFFERENTIAL CUT-REGISTER CONTROL UNIT

For cutting to register, printed wraps, labels, etc. This unit is to be had on Beck Sheeters controlled either by hand or ELECTRIC EYE.

CHARLES BECK MACHINE COMPANY
13th & Callowhill Sts.
Philadelphia, Pa.



YOUR IMMEDIATE ATTENTION IS CALLED TO THIS NEW
No. 17 IMPROVED AUTOMATIC TUBE FILLING, CLOSING
AND CRIMPING MACHINE for SEALING COLLAPSIBLE TUBES.
TYPE "A" for PASTE. "B" for POWDERS. "C" for LIQUIDS.

The famous COLTON CLOSURE machine has been greatly improved and simplified.

It now offers you these new advantages:

1. Motor is underneath, out of the way.

2. Equipped with REEVES drive for speed control.

3. New design filling head gives a positive free smooth action of nozzle.

4. Start and stop push button switch.

Two hand levers. One for starting machine proper. One for stopping and starting filling mechanism.

All of these improvements—yet no increase in price. Write today for a sample tube and full information on this machine.

ARTHUR COLTON CO.

2602 JEFFERSON AVE., EAST

DETROIT

MICHIGAN



Electric Drive Stirring Device as shown is recommended for materials that do not flow readily in our standard hopper.

LIGHTING EFFICIENCY

(Continued from page 90)

insufficient wattage, or by the lack of suitable reflectors. Non-uniformity of illumination generally results from too wide a spacing of outlets in relation to the mounting height, or from the use of bare lamps, or unsuitable reflecting equipment. Harsh shadows are the result of a poor diffusion, or too wide a spacing of units and may be overcome by the use of white bowl lamps, inside frosted lamps or diffusing glassware accessories properly located. Gloom is the result of dark surroundings, or of inadequate general illumination. It may prevail even though high intensities of illumination are provided on the work. Dark side walls, ceilings and machinery produce this depressing effect. To avoid gloom, walls and ceilings should be finished in light colors and proper intensity of general illumination provided.

Most of these evils can be overcome by selecting the proper type of industrial reflector. Porcelain enameled steel reflectors are generally favored because of their dur-

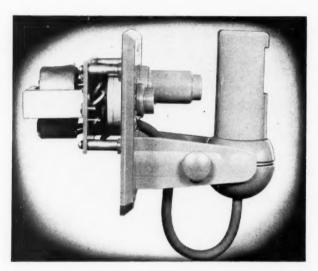
ability and efficiency.

Lighting equipment must be fashioned to conform with the physical characteristics of a room just as a suit of clothes must be fitted to the physical characteristics of an individual. The room must be appraised first from the standpoint of its general proportions; second, from the color and material of the walls and ceilings, and third, from the standpoint of its regional situation, whether it is located where the air is reasonably clean or whether dust, dirt, soot, smoke or other similar elements are present which would tend to collect on, or in, the lighting units and therefore reduce efficiency. This last is referred to as a "maintenance condition."

Often the existing ceiling outlets can be used. If, however, the present outlets are improperly spaced it will be necessary to re-space them as follows: The allowable space between outlets is dependent upon the mounting height of the luminaire. The mounting height is the distance from the floor to the bottom of the globe or reflector of the luminaire. A good rule to follow is that the spacing between luminaires should be approximately equal to the mounting height and in no case should the spacing be more than one and one-half times the mounting height if an even distribution of light is desired. The distance from the wall to the first outlet should be approximately one-half the distance between outlets. Nine to twelve feet are desirable mounting heights to work toward in most industrial interiors. Unless the ceiling is very low, suspension-type luminaires are to be preferred over ceiling types. It is customary to use these units with the suspension length provided by the manufacturer, in which case their mounting height is obtained by subtracting the over-all length of the unit from the ceiling height of the room.

It is advisable to make a close inspection of the type of wiring in a building before making any recommendations for the new luminaires to be installed. Sometimes it will be found that a complete re-wiring job is necessary for luminaires of proper size and wattage to be installed. If this is done, it is a good idea to insure sufficient wiring capacity not only for the present installation but also for any anticipated future use.

By installing an automatic lighting control device, variations in natural light can never interfere with good artificial working illumination on any day in the year. Methods of turning lights on and off in the past have depended on someone's judgment. Such judgment is likely to be inaccurate because, when weather conditions vary, direct or natural illumination is so deceptive that lights are seldom turned on until long after they are needed-then left burning when artificial light is no longer necessary. Such devices consist, essentially, of a photoelectric tube, sensitive to light changes, which operates automatically to turn electric lights on or off when daylight increases or decreases in intensity to a predetermined value. In addition to taking care of such fortuitous light changes as those occurring due to cloud or smoke passage, such devices automatically allow for the changing dusk-moment in Winter and, while guaranteeing adequate light, provide marked current savings.



A recently developed device which utilizes a photoelectric cell to regulate the turning on or off of artificial illumination in packaging and processing rooms with an increase or decrease of natural daylight. The adjustment for obtaining the desired lighting conditions in the room is made by means of two knobs on the control unit. One knob determines the low point of natural light at which the artificial lights are turned on. Setting the other knob fixes the point at which artificial light is no longer needed. Photo courtesy General Electric Co.

To maintain a lighting installation at its maximum efficiency, all lighting equipment should be cleaned at regular intervals by wiping off the dust and dirt and thoroughly washing at every third or fourth interval. Also, as the color and condition of the walls and ceilings have a direct effect on the efficiency of a lighting system, it is important that they be kept cleaned and refinished from time to time.



Foil Embosser and Laminator

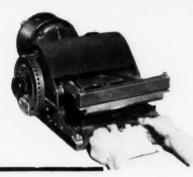
Machine particularly designed for embossing foils as well as laminating foil with any type of paper. Gluing device and slitter head built into machine if required. Also combined with waxing unit to permit waxing, and embossing or waxing and laminating foils in single operation.

Write for our folder on Embossing Equipment of all types.

HUDSON-SHARP MACHINE CO.
Green Bay, Wis.

SEAL BAGS and SAVE TIME, MONEY, MATERIALS!

with this Power Crimper



This motor driven, pedal controlled machine provides a perfect heat seal for all types of heat sealing cellophane bags. It is unusually speedy, foolproof and effective. No need to buy stickers, staples or glue. No fold over . . . you save on materials.

Scores of machines are in profitable use in such plants as Bayer Co. Inc. (Aspirin), Loose Wiles Biscuit Co. (Candies), Kraft-Phoenix Cheese Corp. (Popcorn), Tom Huston Co. (Peanuts), Dupont Rayon Corp. (Textiles).

Send for full details about this amazing machine . . . and its unusually low cost, high production and proven ability to save.

Wrap-Ade Machine Co., INC. 215 CENTRAL AVE. NEWARK, N. J.

MArket 2-0931

Ask also about Wrap-Ade Devices for sheeting, gluing, sealing, crimping, labeling, punching and bag, envelope and tube making with transparent cellulose.

VIALS

That won't SERAN!



PHARMACEUTICAL, DENTAL and other PERSONAL PRODUCTS should be packed in

Hycoloid

UNBREAKABLE

MADE IN ALL COLORS

80% LIGHTER THAN GLASS

BECAUSE they are safe when packed in pocket, purse or travelling case. They will not break! They not only give better protection to their contents, but prevent damage to cases or clothes! Made in beautiful color effects, distinctive; transparent or opaque. Send for samples and test these apparent benefits!

HYGIENIC TUBE & CONTAINER CO.
42 Avenue L Newark, N. J.





A new line of stock bottles, known as the Chesapeake Oval, has recently been placed on the market by the Maryland Glass Corp. The new bottle is especially designed to provide adequate space for either a conventional or special shape label. It is likewise claimed to be specially balanced and extremely easy to grip. Available in either blue or flint glass, these containers may be had in 4, 6, 8, 12, 16 and 32-oz. sizes with standard continuous thread finish, G.C.A. 400. Black double shell caps with fluted gripping tops are carried in stock by the company.

PACKAGE MACHINERY CO. is this month celebrating its 25th anniversary. The firm was formed in February of 1913 as an amalgation of five small wrapping machine companies. The company first occupied a small factory, inherited from one of the amalgamated firms, and in 1917 moved to its present plant, subsequently erecting a number of additions. The present officers, Roger L. Futnam, president, George A. Mohlman, vice president and Roe S. Clark, are all of the company's so-called "second generation," having joined the firm some years after its formation.

THE HAZEL-ATLAS GLASS CO., Wheeling, W. Va., has added two additional sizes, 3 oz. and 18 oz., respectively, to its new Labeline line of jars. Both new jars are identical in shape and design with the original Labeline family (see Modern Packaging, January 1938). Introduced only a short time, Labeline jars have already been adopted by a number of packers. The new sizes add to this already complete line, providing jars with capacities for every use—20 items now ranging from 3 oz. to $46^3/8$ oz.

GIVE YOUR LABELS A CHANCE

(Continued from page 92)

As to the shape of the label, here the designer can have a wide latitude. However, there are a few points which it might be well to bear in mind.

For machine application never use a round label, when it is necessary to position it relative to the printed matter, as it is very difficult to place such labels in their proper relative position in the hopper of the machine. The same effect of a round label, however, may be obtained in several ways:

First, the circle may be flattened as in Fig. 1.

Second, an ornamentation may be appropriately worked into the design, care being taken to have it either at the head or foot, as in Figs. 2 or 3.

Third, use of a scalloped design around the periphery is also another means, although this is not as desirable as the first two methods as it requires the operator to inspect the lifts as they are placed in the hopper.

As regards oval shapes, it is desirable to have an appreciable difference between the major and the minor axes. If this is not the case, vibrations are liable to cause them to skew in the hopper while operating with consequent mispositioning on the bottle.

Of course, square, rectangular and multi-sided shapes offer little or no difficulties. However, equipments on the market today offer a wide use for odd shapes and here the designer may let his fancy run freely, the only precaution being to design away from too acute angles although even such type of labels can be run if fabricated on gummed stock and then have adhesive re-applied in the machine. This, however, increases the cost.

Coming to the shapes of bottles, the placement of the label should be kept away from warped surfaces and by this we mean a surface having a curvature in the direction of both axes. If it is necessary to use this type of bottle, the casting-in of a flat panel will permit a difficult job to become an easy one.

In applying a label to a warped surface, what is really being attempted is to conform a plane surface to curved surfaces running both perpendicularly and horizontally. Naturally, the result is a tendency of the paper to "bunch" in one direction or crack in the other or both. Hand application can overcome these tendencies to a degree by soaking the label and later ironing out the bunching with a folder. This of necessity is slow and costly and not applicable to mechanical application which primarily is used for economical and production reasons. Although the forming of the shape of the label to eliminate bunching and cracking has been resorted to, still even this does not allow clean, smooth labeling and in the vast majority of cases has, in the final analysis, become a hand job.

While on the subject of warped surfaces, another de-



Mills can manufacture clay-coated boxboard every day of the year. But few days supply the naturally ideal humidity and temperature conditions for making highest quality boxboard.

That is why the Eddy Paper Corp., makers of the famous BEND-WELL clay-coated boxboard, spent thousands upon thousands of dollars in equipping its great new plant with ultra-modern AIR-CONDITIONING.

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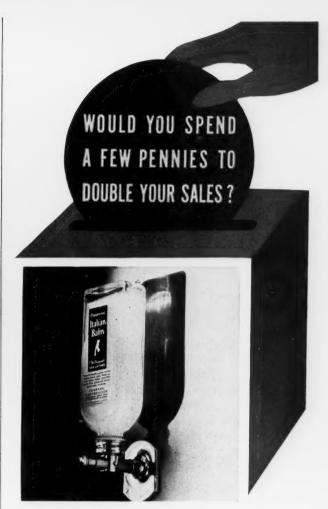
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Chicago: Palmolive Bldg.
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We Do Not Manufacture Folding Cartons



It actually costs far less than you suppose to add a Federal sprayer or dispenser to your bottle . . . making your simple container into a valuable utility package.

Look into what Federal has done for these products...

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The results are spelled in no uncertain manner \dots stepped-up consumer interest and satisfaction! Increased volume! Rocketed re-sales!

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sign which is used only too often, in the case of flat bottles, is to have the label adhered partways on the curve between the neck and the body proper (Fig. 4). Although this can be done, it has the tendency to slow up the operation and increases rejections due to the label springing away when using a stiffer type paper. The same general effect can be obtained by either cutting down the size of the label or, when possible, positioning the label lower on the body. There is grave doubt as to what advantage is gained by a design as in Fig. 4.

Another "headache" is the labeling job which is shown in Fig. 5, which is a section parallel to the base of the bottle. Here the label is affixed to a concave surface and then brought up to the top of the convex beads or ribs C, which run along the body perpendicularly to the base of the bottle. It is self-evident that running at the higher speeds, pressure cannot be exerted and sustained long enough to have the adhesive overcome the spring of the paper from such a small radius. The result is that instead of a finished product coming from the machine, the labels must be pressed or rubbed home by hand afterwards with the added cost. By terminating the label at D the general appearance would not be affected, the operation of labeling could be sped up and the rubbing down and its cost eliminated.

Another case is shown in Fig. 6. Here the label was a narrow odd shaped seal. It will be noted that the end E was adhered to a small portion of the upper flat surface and in the concave section. In applying this seal to the bottle and prior to pressing it home, the point E came in contact with the upper flat as shown, and when the pressure was applied either the seal snapped or else the point E slid, leaving adhesive marks which later had to be wiped.

By the simple expedient of dropping the label but a short distance so as to eliminate E from coming in contact with the upper flat, wastage was entirely overcome, no cleaning or wiping was necessary after labeling, production increased and the general appearance unimpaired.

The use of faceted bottles and cast-in panels can be used to good advantage to enhance the appearance of the package. In these cases the only precaution to take is not to design the label to the limit of the facet or panel. Bottles vary due to slight differences in the molds themselves and to uneven shrinkage of the glass. Consequently by allowing a "margin of safety," shall we call it, between the size of the label and the facet or panel, many production headaches may be avoided. Particularly in the case of a panel with the cast-in bead around it, the use of the margin between the label and the bead will add to rather than detract from the appearance.

The above examples are but few of many which could be cited. It is hoped that they may help to illustrate in a meagre way that the mechanical means of labeling which are available today, while granted they have limitations, do afford the designer great opportunity to create that which he has in his mind as fitting for the problem at hand, and produce the package in an economical manner, if only it is borne in mind that labeling equipment, after all, is mechanical and not human.

"TEASERS" INTRODUCE NEW CAN LABELS

(Continued from page 33)

panels each use any of seven varieties of color to identify the six present and one contemplated paint lines produced by the company.

Immediately upon the decision to adopt this color and design scheme—and many months before the new labels would be presented to the market—the sales department began a build-up for the new "identification system" made possible by the seven color label plan. Advertisements began to appear in paint trade journals heralding "A coming event that will make the Martin-Senour lines more impressive, more desirable and more popular than ever before—a standout for both wholesaler and dealer." Without explanatory detail, the company began to use the color scheme on its road signs-miniature billboards of approximately 40 sq. ft. in area—its "tacker" signs as used on fences, trucks, etc., its dealer agency signs used for store identification and its cartons carrying paints in shipment. Even parcel post address labels, color cards, window transparencies and decalcomanias were made to conform to the scheme of the oncoming labels, although neither dealers nor the company's own sales force were informed as to the reason for these changes.

The very silence which was maintained on this point served to stimulate the interest of both salesmen and dealers who began to notice the similarity between all of these items. Thus when the label was finally announced to the trade, the entire picture of the Martin-Senour identification system was made clear to a group whose interest had previously been aroused to a high pitch of anticipation.

Anticipating possible opposition on the part of old dealers to the carrying of mixed stock on their shelves, the company arranged a preview of the new labels before a large meeting of important jobbers and distributors, and secured letters from these gentlemen endorsing the new package and expressing their appreciation of the merchandising appeal and consumer acceptance which dealers could now look forward to. Armed with these endorsements, the company felt ready to present its new package to local meetings of dealers and distributors and to its district sales conferences. Once again the new designs were very favorably received and their merchandising features, in particular, well appreciated.

With the final step in the plan—namely, the introduction of the new label and the shipment of stocks to dealers—it was found that, almost without exception, stores were not only prepared with advertising and display material suitable to the new container, but were psychologically ready to feature all of these elements, including the new label, as a unified group and to explain and demonstrate the products to the consumer in a manner which has already been noted to have a pronounced favorable effect upon sales.



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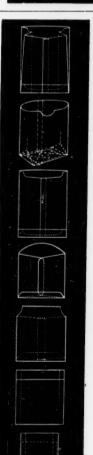
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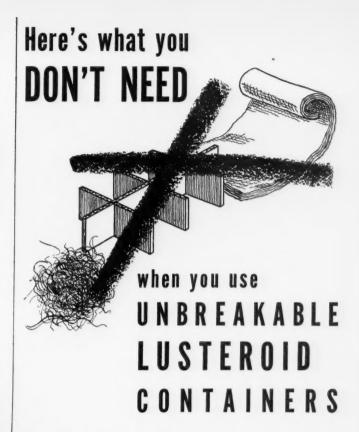
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Formerly Lusteroid Division of The Sillcocks-Miller Company

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FIVE MILLION BARS A DAY

(Continued from page 88)

haps the largest and most complex in the Hershey plant, though by no means the only one worthy of serious study. Of particular interest to the packager is the manner in which provision is made for the constant operation of every unit in the line without interruption due to waiting for materials and without the use of large areas of storage space adjacent to the machines. Material supplies come in, almost invariably, by conveyors so adjusted that their rate closely approaches that of the machines requiring the materials. In some cases, in order to prevent the possibility of shortage at any given point in the line, special steps have been taken to expand the length of conveyors between one machine and the next in line so as to permit an accumulation of waiting supplies upon the conveyor. Thus, should anything interrupt the output of the box sealing unit, the spiral conveyor between that unit and the shipping carton sealer would carry enough material to insure many moments of uninterrupted production. The same applies to the extension conveyor between the bar wrapping machines and the box sealing machines.

Much interest might likewise be found in a study of the so-called kiss department where milk chocolate kisses are manufactured. Here, much of the machinery is of so specialized a nature that it has to be invented and manufactured by Hershey engineers. The kisses are molded by dropping milk chocolate of proper consistency on a steel belt and striking the chocolate almost instantly with a blast of cold air. This causes the outer surface of each kiss to harden and thus to retain the shape formed when the globule of chocolate hits the belt.

A battery of these machines is used, each identical and each with a capacity of over 500 lbs. per hour. These machines discharge onto a conveyor set at right angles to the entire battery and the kisses which gather upon this conveyor are then transported to the Hershey-devised machines which automatically wrap the individual kisses in foil and enclose under the foil a small tissue ribbon to facilitate the opening of the wrapper when the candy is to be eaten.

A battery of 10 of these wrapping machines is in constant operation, each machine wrapping 12 kisses at a stroke and each having a total output of slightly over 500 lbs. per hour. The foil is fed from rolls which are held in position on a device insuring automatic tension control. Once again a "longitudinal" belt conveyor receives the output of the entire battery of machines and passes the now glistening silver kisses before inspectors who cull any kisses that are imperfectly wrapped.

They then proceed to a weighing device, ingeniously designed to provide both high speed and accuracy. Set above a moving belt carrying empty boxes, this device consists of two sections known respectively as a "bulker" and a "dribble belt." It is a well-known fact that the

finer the stream, the more accurate will be the weights obtained by the weighing machine. But to use a fine stream only, on weights over 1 lb., would result in very slow and hence expensive production operations. Therefore, the "bulker" part of the feeding and weighing machine is used to automatically dump in at one load about $^{7}/_{8}$ of the total weight to be contained in each box. The bulker gate then closes and the dribble part of the feeder, which is nothing more than a narrow belt, feeds the balance of the kisses required to trip the scale.

Means have been provided whereby, when the bulk load is dumped into the scale box, the scale beam is held up so that the impact of the bulk load hitting the scale wing will not trip the feeder. When the bulk stream is shut off, the scale beam is released for the dribble stream to do the weighing. Thus the dribble stream operates continuously and the bulk stream intermittently. When the correct weight is obtained, the scale automatically trips a one-revolution clutch. This clutch operates the bulk gate operating cam. The amount of bulk required can, of course, be adjusted for each type and size of container to be used. By using the bulk gate it is possible to obtain 30 drafts per minute.

In the two departments which have been described in detail in the foregoing paragraphs, Hershey produces the major portion of its products which are marketed through retail channels to the consumer. A number of other products such as cocoa are filled and packed on highly mechanized lines. Still another group of products, and a great deal of special packaging for seasonal presentation of the bar and kiss forms of chocolate, are processed largely by hand labor with the aid of semiautomatic machines and hand tools. One further group of products, which bulks very large in point of volume but which involves little that is unusual in its packaging aspects, are those items which Hershey produces for the use of other confectionery manufacturers. The average consumer is probably unaware that a great deal of the candy he purchases is made with chocolate supplied to the candy manufacturer by Hershey.

Throughout these processing operations, as in the printing and boxmaking and the bar and kiss wrapping and packaging departments, great stress is laid upon the even flow of materials through the plant and upon the maintenance of sanitary precautions during the process. This attention to sanitation works back through all processing departments right down to the dairy farms which supply the company with its milk and, through its packages, Hershey has carried it forward right up to the ultimate consumer. The individual kiss or bar is separately wrapped and untouched by hands at any time. The larger containers for transporting these bars are hermetically sealed and hence provide further protection.

Perhaps most interesting of all in the Hershey set-up is the way in which the company has overcome the problems of expansion. Most of the automatic lines are so laid out that additional machines may be set into the original conveyor system without extensive alteration of the general plant set-up and thus expansion of production becomes a relatively simple matter.

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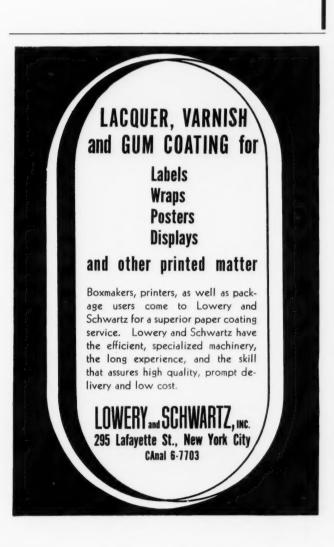
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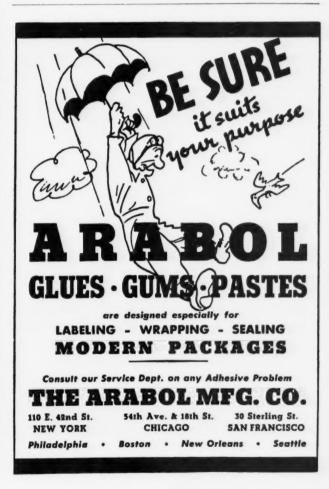
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